400389

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To: Ruth Harris

From: Julie Beecher

Date: December 17, 1990

Topic: Marshall Islands

File(s) Searched: Energy Science & Technology; NTIS; Georef; Nuclear Science Abstracts

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NUCLEAR SCIENCE ABSTRACTS: 1948-1976
NTIS: 1964-1990
GEOREF: 1785-1990

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S1	1188	ENEWETAK OR RONGELAP OR BIKINI OR RONGERIK OR KWAJALEIN OR AILINGINAE OR UTIRIK OR BIKAR
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S8	0	S7 AND DT=JOURNAL ARTICLE
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S11	122	RD S9 (unique items)

? print 11/7/all via dialmail
Print 11/7/ALL VIA DIALMAIL (Items 1-122) est. cost of $67.10

7/7/1 (Item 1 from file: 103)
1720423 NOV-89:06/4P4, ETD-89:097015
Author: Saller, A.H.; Schlanger, S.O.
Title: Evolution of reef and atoll margin carbonates, upper Eocene through lower Miocene, Enewetak, Marshall Islands
Conference Title: Annual meeting of the American Association of Petroleum Geologists
Conference Location: Houston, TX, USA Conference Date: 20 Mar 1988
Publisher: American Association of Petroleum Geologists,Tulsa, OK
Date: 1988 vp. p.
Report No.: CONF-880301-
Document Type: Book; Conference literature
Language: English
Journal Announcement: ETD8900
Availability: American Association of Petroleum Geologists, P.O. Box 979, Tulsa, OK 74101.
Subfile: ETD (Energy Technology Data Exchange). NOV (DOE contractor)
Country of Publication: United States
Work Location: United States
Abstract: Two wells drilled along the margin of Enewetak Atoll penetrated approximately 1,000 m of upper eocene, Oligocene, and lower Miocene carbonates. STrontium isotope stratigraphy indicates relatively continuous deposition of carbonate from 40 Ma to 20 Ma. Depositional environments show a gradual basinward progradation of facies with slope carbonates passing upward into fore-reef, reef, back-reef, and lagoonal carbonates. Slope strata contain wackestones and packstones with submarine-cemented

lithoclasts, coral, coralline algae fragments, benthic rotaline forams, planktonic forams, and echinoderm fragments. Fore-reef strata are dominantly packstones and boundstones containing large pieces of coral, abundant benthic forams, coralline algae fragments, stromatoporoids(.), and minor planktonic forams. Reef and near-reef sediments include coralgal boundstones and grainstones with abundant benthic forams. Halimeda and miliolid forams are common in lagoonward parts of the back reef. Sponge borings, geopetal structures, and fractures are common in reef and fore-reef strata. Lagoonal strata are wackestones and packstones with common mollusks, coral, coralline algae, and benthic forams (rotaline and miliolid). Diagenesis has extensively altered strata near the atoll margin. Aragonite dissolution and calcite cements (radiaxial and cloudy prismatic are abundant in fore-reef, reef, and some back-reef strata). Petrographic and geochemical data indicate arogonite dissolution and calcite cementation in seawater at burial depths of 100 to 300 m. Dolomite occurs in slope and deeply buried reefal carbonates.

7/7/2 (Item 1 from file: 104)
755290 EDB-81:100555
Author: Miyake, Y.
Title: Radioactivity in rain water and the air observed in Japan 1954-1955
Series Title: Paper 1055
Conference Title: International conference on the peaceful uses of atomic energy
Conference Location: Geneva, Switzerland Conference Date: 1955
Publisher: United Nations,New York, NY
Date: 1955 v p.
Document Type: Book; Conference literature
Language: English
Journal Announcement: EDB8109
Subfile: TIC (Technical Information Center).
Country of Publication: United Nations (UN)
Work Location: United Nations (UN)
Abstract: Radioactivity was detected in the rain in southern Japan beginning May 14, 1954, reaching a maximum of 1 c/l on May 16 at Kyoto University. Trajectories indicate air came from Bikini via the Philippines and Formosa. Activity from May to Sep 1954, was always stronger on the Pacific side of Japan than on Japan sea side, maximum concentrated at the beginning of rain.

7/7/3 (Item 2 from file: 104)
737879 EPA-07:002811, EDB-81:046135
Title: Pacific Basin energy. Hearings before the Committee on Energy and Natural Resources, United States Senate, Ninety-Sixth Congress, Second Session, July 10 and 11, 1980
Series Title: Publication No. 96-145
Publisher: Committee on Energy and Natural Resources,Washington, DC
Date: 1980 550 p.
Document Type: Book; Legislative material
Language: English
Journal Announcement: EDB8104
Availability: GPO.
Subfile: EPA (Energy Abstracts for Policy Analysis); TIC (Technical Information Center).

Country of Publication: United States
Work Location: United States
Abstract: Hearings were held on July 10 and 11, 1980 to discuss H.R. 7330, a bill that provides for assessing and developing the renewable energy resources of US islands and trust territories. The intent is to offset the social and economic impacts of high fuel costs and to promote self-sufficiency. The testimony of 34 witnesses and other material for the record addresses the specific problem that these areas are more dependent on imported oil because an energy-delivery system was never developed. The text of H.R. 7330 deals directly with American Samoa, Guam, the Northern Mariana Islands, Pacific Islands Trust Territory, and the Virgin Islands. It provides both technical and financial assistance. (DCK)

7/7/4 (Item 1 from file: 109)
112307 NSA-33-022675
Providing an authorization for an ex gratia payment to the people of Bikini Atoll, in the Marshall Islands of the Trust Territory of the Pacific Islands. Senate, Ninety-Fourth Congress, First Session, June 2, 1975
Publication Date: 1975 3 p.
Country of Publication: United States
Publ: Committee on Interior and Insular Affairs, Washington, DC
Journal Announcement: NSA33
Availability: GPO
Document Type: Book
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Work Location: United States
Proposed legislation for payment of $3 million ex gratia to the people of Bikini Atoll due to their relocation resulting from nuclear-weapons testing and successive contamination of their homeland is presented. The Committee on Interior and Insular Affairs recommends passage. (RCS)

7/7/5 (Item 2 from file: 109)
1045348 NSA-32-016686
Providing an authorization for an ex gratia payment to the people of Bikini Atoll, in the Marshall Islands of the Trust Territory of the Pacific Island. House of Representatives, Ninety-Fourth Congress, First Session, May 1 1975
Committee on Interior and Insular Affairs (U.S. Senate), Washington, D.C.
Corp. Source Code: 9500482
Publication Date: 1975 4 p.
Country of Publication: United States
Publ: Committee on Interior and Insular Affairs, Washington, DC
Journal Announcement: NSA32
Availability: GPO
Document Type: Book
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Work Location: United States

7/7/6 (Item 3 from file: 109)
070689 NSA-11-009206
RESEARCH IN THE EFFECTS AND INFLUENCES OF THE NUCLEAR BOMB TEST EXPLOSIONS. VOLUME I AND II
Publication Date: 1956 1837 p.

Publ: Japan Society for the Promotion of Sciences
Journal Announcement: NSA11
Document Type: Book
Language: English

7/7/7 (Item 4 from file: 109)
002888 NSA-02-000876
No Place to Hide
Bradley, D.
Publication Date: 1948 182 p.
Publ: Little, Brown and Co.
Journal Announcement: NSA02
Document Type: Book
Language: English

7/7/8 (Item 5 from file: 109)
002028 NSA-02-000036
The Response of Tissue to Total Body Irradiation. Report 11
Tullis, J.L.
Naval Medical Research Institute
Publication Date: July 22, 1948 27 p.
Journal Announcement: NSA02
Document Type: Book
Language: English

7/7/9 (Item 1 from file: 89)
01882585 GEOREF NO.: 90-28915 BIBL. INDEX GEOLOGY NO.: 90-25569
TITLE: Mapping nuclear craters on Enewetak Atoll, Marshall Islands
AUTHOR(S): Hampson, John C., Jr.
CORPORATE SOURCE: U. S. Geol. Surv., Woods Hole, MA, United States
MONOGRAPH TITLE: Proceedings; International symposium on Marine positioning
EDITOR(S): Kumar, Muneendra (editor); Maul, George A. (editor)
CORPORATE SOURCE: Def. Mapp. Agency, Washington, DC, United States; Natl. Oceanic and Atmos. Adm., United States
CONFERENCE TITLE: International symposium on Marine positioning; positioning the future; INSMAP 86
CONFERENCE LOCATION: Reston, VA, United States
CONFERENCE DATE: Oct. 14-17, 1986
PUBLISHER: D. Reidel Publ. Co., Dordrecht, Netherlands p. 249-258
DATE: 1987
COUNTRY OF PUBLICATION: Netherlands
ISBN: 90-277-2505-5
REFS.: 2
SUBFILE: B
DOCUMENT TYPE: Book; Conference BIBLIOGRAPHIC LEVEL: Analytic
ILLUSTRATIONS: illus.; sketch maps
LANGUAGE: English

7/7/10 (Item 2 from file: 89)
01548063 GEOREF NO.: 87-21572 BIBL. INDEX GEOLOGY NO.: 87-15558
TITLE: Internal hydrology and geochemistry of coral reefs and atoll islands; key to diagenetic variations
AUTHOR(S): Buddemeier, Robert W.; Oberdorfer, June A.
CORPORATE SOURCE: Lawrence Livermore Natl. Lab., Livermore, CA, United

States
MONOGRAPH TITLE: Reef diagenesis
EDITOR(S): Schroeder, Johannes H. (editor); Purser, Bruce H. (editor)
CORPORATE SOURCE: Tech. Univ. Berlin, Inst. Geol. und Palaeontol., Berlin, Germany, Federal Republic of; Univ. Paris-Sud, Lab. Petrol. Sediment. et Paleontol., France; San Jose State Univ., Dep. Geol., United States
PUBLISHER: Springer-Verlag, Berlin, Germany, Federal Republic of p. 81-111
DATE: 1986
COUNTRY OF PUBLICATION: Germany, Federal Republic of
ISBN: 3-540-16594-0
REFS.: 28
SUBFILE: B
DOCUMENT TYPE: Book BIBLIOGRAPHIC LEVEL: Analytic
ILLUSTRATIONS: illus.; 3 tables
LANGUAGE: English

7/7/11 (Item 3 from file: 89)
01238856 GEOREF NO.: 84-29444 BIBL. INDEX GEOLOGY NO.: 84-29270
TITLE: Radioactive wastes and the ocean; an overview
AUTHOR(S): Park, P. K.; Kester, D. R.; Duedall, I. W.; Ketchum, B. H.
CORPORATE SOURCE: Natl. Oceanic and Atmos., Adm., Ocean Dumping Program, Rockville, MD, United States
MONOGRAPH TITLE: Radioactive wastes and the ocean
EDITOR(S): Park, P. K. (editor); Kester, D. R. (editor); Duedall, I. W. (editor); Ketchum, B. H. (editor)
CORPORATE SOURCE: Natl. Oceanic and Atmos. Adm., Ocean Dumping Program, Rockville, MD, United States; Univ. R. I., Grad. Sch. Oceanogr, United States, Fla. Inst. Technol., Dep. Oceanogr. and Ocean Eng., United States, Woods Hole Oceanogr. Inst., United States, Univ. R.I., Grad. Sch. Oceanogr., United States, Fla. Inst. Technol., Dep. Oceanogr. and Ocean Eng., United States, Woods Hole Oceanogr. Inst., United States
COLLECTION TITLE: Wastes in the ocean
PUBLISHER: John Wiley & Sons, New York, NY, United States
vol. 3 p. 3-46
DATE: 1983
COUNTRY OF PUBLICATION: United States
ISBN: 0-471-09770-5
REFS.: 74
SUBFILE: B
DOCUMENT TYPE: Book BIBLIOGRAPHIC LEVEL: Analytic
ILLUSTRATIONS: illus.; 8 tables; sketch maps
LANGUAGE: English

7/7/12 (Item 4 from file: 89)
01062765 GEOREF NO.: 81-57383 BIBL. INDEX GEOLOGY NO.: 81-55115
MONOGRAPH TITLE: Erewetak Atoll; cleaning up nuclear contamination
CORPORATE SOURCE: U. S. Comptroller General, Washington, DC, United

LANGUAGE: English

7/7/13 (Item 5 from file: 89)
00846376 GEOREF NO.: 77-31461 BIBL. INDEX GEOLOGY NO.: 77-31169
TITLE: Plutonium and americium in soils of Bikini Atoll
AUTHOR(S): Nevissi, A.; Schell, W. R.; Nelson, V. A.
CORPORATE SOURCE: Univ. Wash., Seattle, Wash., United States
MONOGRAPH TITLE: Transuranium nuclides in the environment
AUTHOR(S): Anonymous
CONFERENCE TITLE: Transuranium nuclides in the environment
CONFERENCE LOCATION: San Franc., Calif., United States
CONFERENCE DATE: Nov. 17-21, 1975
PUBLISHER: IAEA, Vienna, Austria p. 691-701
DATE: 1976
COUNTRY OF PUBLICATION: Austria
REFS.: 15
SUBFILE: B
DOCUMENT TYPE: Book; Conference BIBLIOGRAPHIC LEVEL: Analytic
ILLUSTRATIONS: tables; sketch maps
LANGUAGE: English
NOTE: With discussion

7/7/14 (Item 6 from file: 89)
00846373 GEOREF NO.: 77-31458 BIBL. INDEX GEOLOGY NO.: 77-31171
TITLE: Plutonium radionuclides in the groundwaters at Enewetak Atoll
AUTHOR(S): Noshkin, V. E.; Wong, K. M.; Marsh, K.; Eagle, R.; Holladay, G.; Buddemeier, R. W.
CORPORATE SOURCE: Lawrence Livermore Lab., Livermore, Calif., United States
MONOGRAPH TITLE: Transuranium nuclides in the environment
AUTHOR(S): Anonymous; Univ. Hawaii, United States
CONFERENCE TITLE: Transuranium nuclides in the environment
CONFERENCE LOCATION: San Franc., Calif., United States
CONFERENCE DATE: Nov. 17-21, 1975
PUBLISHER: IAEA, Vienna, Austria p. 517-543
DATE: 1976
COUNTRY OF PUBLICATION: Austria
REFS.: 18
SUBFILE: B
DOCUMENT TYPE: Book; Conference BIBLIOGRAPHIC LEVEL: Analytic
ILLUSTRATIONS: illus.; tables; sketch map
LANGUAGE: English
NOTE: With discussion

7/7/15 (Item 7 from file: 89)
00791780 GEOREF NO.: 76-22366
TITLE: Travel times for Pacific explosions
AUTHOR(S): Jeffreys, H.
MONOGRAPH TITLE: Observational seismology
EDITOR(S): Jeffreys, H. (editor)
COLLECTION TITLE: Collected papers of Sir Harold Jeffreys on geophysics and other sciences
PUBLISHER: Gordon and Breach Sci. Publ., London, United Kingdom
Vol. 3 p. 652-659 6
DATE: 1973

COUNTRY OF PUBLICATION: United Kingdom
SUBFILE: B
DOCUMENT TYPE: Book BIBLIOGRAPHIC LEVEL: Analytic
ILLUSTRATIONS: tables
LANGUAGE: English
NOTE: Reprint from Geophys. J. Royal Astron. Soc., Vol. 7, No. 2, 1962

7/7/16 (Item 8 from file: 89)
00786747 GEOREF NO.: 76-17333
TITLE: Deflections of the vertical from bathymetric data
AUTHOR(S): Fischer, I.; Wyatt, P., III
CORPORATE SOURCE: Defense Mapping Agency Topogr. Cent., Wash., D.C., United States
MONOGRAPH TITLE: Applications of marine geodesy
AUTHOR(S): Moritz, H. (chairperson)
PUBLISHER: Marine Technol. Soc., Wash., D.C., United States p. 397-408
DATE: 1974
COUNTRY OF PUBLICATION: United States
SUBFILE: B
DOCUMENT TYPE: Book BIBLIOGRAPHIC LEVEL: Analytic
ILLUSTRATIONS: illus.: sketch maps
LANGUAGE: English

5004629

File 103:ENERGY SCIENCE & TECHNOLOGY_83-90/NOV(ISS22)
File 104:ENERGY SCIENCE & TECHNOLOGY_1974-1982(SEE FILE 103)
File 109:NSA (NUCLEAR SCIENCE ABSTRACTS) 1948-1976
File 6:NTIS - 64-91/ISSUE01
File 89:GEOREF_1785-1990/SEP

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3	557	S2 AND LA=ENGLISH
4	1367	S2 OR TRUST()TERRITORY(2W)PACIFIC OR PACIFIC()PROVING()GROUND
5	565	S4/TI,DE
6	531	S5/ENG
7	16	S6 AND DT=BOOK
8	0	S7 AND DT=JOURNAL ARTICLE
9	128	S6 AND DT=JOURNAL ARTICLE
10	16	RD S7 (unique items)
11	122	RD S9 (unique items)

Record - 1

(CATALOG File 103:)
1940128 EDB-90:143905
Title: Isotopic and chemical signatures of Eustasy: The record at Enewetak Atoll
Author: Quinn, T.M.; Lohmann, K.C.; Halliday, A.N. (Univ. of Michigan, Ann Arbor (USA))
Conference Title: Annual convention and exposition of the American Association of Petroleum Geologists
Conference Location: San Francisco, CA (USA) Conference Date: 3-6 Jun 1990
Source: AAPG Bulletin (American Association of Petroleum Geologists) (USA) v 74:5.
Date: May 1990 745 p.
Coden: AABUD
Report No.: CONF-900605-
Document Type: Journal Article; Conference literature
Language: English
Journal Announcement: EDB9000
Subfile: ETD (Energy Technology Data Exchange). JMT (DOE contractor)
Country of Publication: United States
Work Location: United States
Abstract: The post-Miocene eustatic record of Enewetak Atoll has been examined using lithology, mineralogy, stable isotope, strontium isotope, geochemical, and petrographic data. These data are evidence for at least 14 subaerial unconformities and numerous thin (< 3 m) paleophreatic lenses. The vast majority of these subaerial exposure surfaces are characterized by development of caliche, oxidized and laminated crusts, depletion in Sr and Mg, and ..delta.. C sup 13 values depleted at the exposure surface and

become progressively enriched with depth. Strontium isotope stratigraphy of the upper 200 m of core KAR-1, developed from coral, bivalve, and whole-rock samples, indicates the presence of four major subaerial unconformities, which have been confirmed by a newly developed strontium isotope stratigraphy on age and facies equivalent sediments of core DDR-17. Oxygen, carbon, and strontium isotope and concentration data of microsamples (0.5 to 1.0 mg) of sparry calcite cements and adjacent rock matrix document the record of meteoric phreatic diagenesis attendant with these sea level lowstands. Strontium concentration positively covaries with Sr sup 87 /Sr sup 6 and ..delta.. C sup 13 . In contrast, Sr sup 87 /Sr sup 86 negatively covaries with ..delta.. C sup 13 variations. Sr sup 87 /Sr sup 86 values indicate the source of carbonate cementation because strontium is derived from dissolution of overlying aragonitic allochems. When the dissolving aragonite is of similar age, and hence of similar strontium isotopic composition, lowstand phreatic calcites preserve the depositional strontium isotope age. However, when the aragonite source has a significantly different strontium isotope composition lowstand phreatic calcites record a diagenetic strontium isotope age.

Record - 3

<DIALOG File 103: >
1744613 EDB-89:121800
Title: Evolution of reef and atoll margin carbonates, upper Eocene through lower Miocene, Enewetak, Marshall Islands
Author: Saller, A.H.; Schlanger, S.O.
Affiliation: Unocal Science and Technology, Brea, CA (USA)
Conference Title: Annual meeting of the American Association of Petroleum Geologists
Conference Location: Houston, TX, USA Conference Date: 20-23 Mar 1988
Source: AAPG Bull. (United States) v 72:2.
Date: Feb 1988 243 p.
Coden: AABUD
Report No.: CONF-880301-
Document Type: Journal Article; Conference literature
Language: English
Journal Announcement: EDB8900
Subfile: ETD (Energy Technology Data Exchange). JMT (DOE contractor)
Work Location: United States
Abstract: Two wells drilled along the margin of Enewetak Atoll penetrated approximately 1000 m of upper Eocene, Oligocene, and lower Miocene carbonates. Strontium isotope stratigraphy indicates relatively continuous deposition of carbonate from 40 Ma to 20 Ma. Depositional environments show a gradual basinward progradation of facies with slope carbonates passing upward into fore-reef, reef, back-reef, and lagoonal carbonates. Slope strata contain wackestones and packstones with submarine-cemented lithoclasts, coral, coralline algae fragments, benthic rotaline forams, planktonic forams, and echinoderm fragments. Fore-reef strata are dominantly packstones and boundstones containing large pieces of coral, abundant benthic forams, coralline algae fragments, stromatoporoids( ), and minor planktonic forams. Reef and near-reef sediments include coralgal boundstones and grainstones with abundant benthic forams. Halimeda and miliolid forams are common in lagoonward parts of the back reef. Sponge borings, geopetal structures, and fractures are common in reef and fore-reef strata. Lagoonal strata are wackestones and packstones with

common mollusks, coral, coralline algae, and benthic forams (rotaline and miliolid). Diagenesis has extensively altered strata near the atoll margin. Aragonite dissolution and calcite cements (radiaxial and cloudy prismatic) are abundant in fore-reef, reef, and some back-reef strata. Petrographic and geochemical data indicate aragonite dissolution and calcite cementation in seawater at burial depths of 100 to 300 m. Dolomite occurs in slope and deeply buried reefal carbonates. Most dolomitization occurred at burial depths of more than 1000 m in cool marine waters circulating through the atoll. lagconal strata are not significantly altered by marine diagenesis and still contain abundant primary aragonite and magnesium calcite.

Record - 3

<DIALOG File 103: >
1680801 EDB-89:057162
Title: Bikini Atoll groundwater development
Author: Peterson, F.L.
Affiliation: Univ. of Hawaii, Honolulu (USA)
Conference Title: 98. annual meeting of the Geological Society of America
Conference Location: Orlando, FL, USA Conference Date: 28 Oct 1985
Source: Geol. Soc. Am., Abstr. Programs (United States) v 17.
Date: 1985 687 p.
Coden: GAAPB
Report No.: CONF-8510489-
Document Type: Journal Article; Conference literature
Language: English
Journal Announcement: ETDB980
Subfile: ETD (Energy Technology Data Exchange); INS (US Atomindex input). JMT (DOE contractor)
Work Location: United States
Abstract: Nuclear weapons testing during the 1950's has left the soil and ground water on Bikini Atoll contaminated with cesium-137, and to a lesser extent, strontium-90. Plans currently are underway for the clean-up and resettlement of the atoll by removal of approximately the upper 30 cm of soil. Any large-scale resettlement program must include provisions for water supply. This will be achieved principally by catchment and storage of rain water, however, since rainfall in Bikini is highly seasonal and droughts occur frequently, ground water development must also be considered. The quantity of potable ground water that can be developed is limited by its salinity and radiological quality. The few ground water samples available from Bikini, which have been collected from only about the top meter of the groundwater body, indicate that small bodies of potable ground water exist on Bikini and Eneu, the two principal living islands, but that cesium and strontium in the Bikioni ground water exceed drinking water standards. In order to make a reasonable estimate of the ground water development potential for the atoll, some 40 test boreholes will be drilled during July/August 1985, and a program of water quality monitoring initiated. This paper will describe preliminary results of the drilling and monitoring work.

Record - 4

<DIALOG File 103: >
1513728 EDB-88:087080
Title: Strontium-isotope stratigraphy of Enewetak Atoll

Author: Ludwig, K.R.; Halley, R.B.; Simmons, K.R.; Peterman, Z.E.
Affiliation: Geological Survey, Denver, CO (USA)
Source: Geology (United States) v 16:2.
Date: Feb 1988 173-177 p.
Coden: GLGYB
Document Type: Journal Article
Language: English
Journal Announcement: EDB8805
Subfile: JMT (DOE contractor)
Work Location: United States
Abstract: /sup 87/Sr//sup 86/Sr ratios determined for samples from a 350 m core of Neogene lagoonal, shallow-water limestones from Enewetak Atoll display a remarkably informative trend. Like the recently published data for Deep Sea Drilling Project (DSDP) carbonates, /sup 87/Sr//sup 86/Sr at Enewetak increases monotonically but not smoothly from the early Miocene to the Pleistocene. The data show intervals of little or no change in /sup 87/Sr//sup 86/Sr, punctuated by sharp transitions to lower values toward greater core depths. The sharp transitions correlate with observed solution disconformities caused by periods of subaerial erosion, whereas the intervals of little or no change in /sup 87/Sr//sup 86/Sr correspond to intervals of rapid accumulation of shallow-water carbonate sediments. When converted to numerical ages using the published DSDP 590B trend, the best-resolved time breaks are at 282 m (12.3 to 18.2 Ma missing) and 121.6 m (3.0 to 5.3 Ma missing) below the lagoon floor. At Enewetak, Sr isotopes offer a stratigraphic resolution for these shallow-marine Neogene carbonates comparable to that of nannofossil zonation in deep-sea carbonates (0.3-3 m.y.). In addition, the correlation of times of Sr-isotope breaks at Enewetak with times of rapid Sr-isotope change in the DSDP 590B samples confirms the importance of sea-level changes in the evolution of global-marine Sr isotopes and shows that the Sr-isotope response to sea-level falls is rapid.

Record - 5

<DIALOG File 103: >
1+0ee53 EDB-87:165230
Title: Geologic reconnaissance of natural fore-reef slope and a large submarine rockfall exposure, Enewetak Atoll
Author: Halley, R.B.; Slater, R.A.
Affiliation: Geological Survey, Denver, CO
Conference Title: American Association of Petroleum Geologists annual meeting
Conference Location: Los Angeles, CA, USA Conference Date: 7 Jun 1987
Source: AAPG (Am. Assoc. Pet. Geol.) Bull. (United States) v 71:5.
Date: May 1987 563-564 p.
Coden: AABUD
Report No.: CONF-870606-
Document Type: Journal Article; Conference literature
Language: English
Journal Announcement: EDB8710
Subfile: JMT (DOE contractor)
Work Location: United States
Abstract: In 1958 a submarine rockfall exposed a cross section through the reef and fore-reef deposits along the northwestern margin of Enewetak Atoll, Marshall Islands. Removal of more than 10/sup 8/ MT of rock left a

cirque-shaped submarine scarp 220 m high, extending back 190 m into the modern reef, and 1000 m along the reef trend. The scarp exposed older, steeply dipping beds below 220 m along which the rockfall detached. They sampled this exposure and the natural fore-reef slope surrounding it in 1984 and 1985 using a manned submersible. The natural slope in this area is characterized by three zone: (1) the reef plate, crest, and near fore reef that extends fron sea level to -16 m, with a slope of less than 10/sup 0/, (2) the bypass slope that extends from -16 to -275 m, with slopes of 55/sup 0/ decreasing to 35/sup 0/ near the base, and (3) a debris slope of less than 35/sup 0/ below -275 m. Vertical walls, grooves, and chutes, common on other fore-reef slopes, are sparse on the northwestern slope of Enewetak. The scarp exposes three stratigraphic units that are differentiated by surficial appearance: (1) a near-vertical wall from the reef crest to 76 m that appears rubbly, has occasional debris-covered ledges, and is composed mainly of coral; (2) a vertical to overhanging wall from -76 m to -220 m that is massive and fractured, and has smooth, blocky surfaces; and (3) inclined bedding below -220 m along which the slump block has fractured, exposing a dip slope of hard, dense, white limestone and dolomite that extends below -400 m. Caves occur in all three units. Open cement-lined fractures and voids layered with cements are most common in the middle unit, which now lies within the thermocline. Along the sides of the scarp are exposed fore-reef boulder beds dipping at 30/sup 0/ toward the open sea; the steeper (55/sup 0/) dipping natural surface truncates these beds, which gives evidence of the erosional nature of the bypass slope.

Record - 6

<DIALOG File 103: >
1360727 EDB-87:119309
Title: Gamma-ray spectrum of the radioactive dust produced by the super-hydrogen bomb test explosion on March 1, 1954
Author: Shimizu, Sakae
Affiliation: Kyoto Univ., Japan
Conference Title: 3. international symposium on radiation physics
Conference Location: Ferrara, Italy Conference Date: 30 Sep 1985
Source: Nucl. Instrum. Methods Phys. Res., Sect. A. (Netherlands) v 255:1/2.
Date: 15 Mar 1987 177-182 p.
Coden: NIMAE
Report No.: CONF-850925-
Document Type: Journal Article; Conference literature
Language: English
Journal Announcement: EDB8707
Subfile: INIS (non-US Atomindex input AIX)
Work Location: Japan
Abstract: The super-hydrogen bomb test explosion, the so-called Bravo test of a fission-fusion-fission bomb, was carried out on Bikini Atoll in the mid-Pacific on March 1, 1954. Twenty-three Japanese fishermen on board a fishing boat about 90 miles north-east of the test site were attacked unexpectedly by the fallout, radioactive fine debris of coral reef. Within several months after the accident by radiochemical analysis about 20 different nuclides of fission products and, in addition, a considerable amount of /sup 235/U were discovered from the fallout. As we have been preserving a minute amount of the original fallout dust collected on board the fishing boat 31 years ago, measurements of ..gamma.. rays from it have

recently been used to find some active nuclides, if still existing. In the X-rays from /sup 241/Am, /sup 155/Eu, /sup 137/Cs and /sup 60/Co. Absolute intensities of these four nuclides, still remaining 31 years after the explosion of the bomb, have been estimated. Some discussion on our finding is presented.

Record - 7

<DIALOG File 103: >
1231172 AIX-17:081989, EDB-86:185977
Title: Gamma-ray activity of the fallout dust produced by the super-hydrogen bomb test explosion on March 1, 1954
Author: Shimizu, Sakae
Affiliation: Kyoto Univ., Uji, Japan. Inst. for Chemical Research
Source: ATOMKI Kozl. (Hungary) v 28:1.
Date: 1986 1-11 p.
Coden: ATKOA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8611
Subfile: INIS (non-US Atomindex input AIX)
Work Location: Japan
Abstract: The super-hydrogen bomb test explosion, called Bravo was executed on Bikini Atoll on March 1, 1954. Fallout dust collected on a Japanese fishing boat 31 years ago was analyzed using a HPGe detector. The existence of sup(241)Am, sup(155)Eu, sup(137)Cs and sup(60)Co could be proved by means of gamma spectrometry. Morphological features of the fire debris of fallout and absolute activities of the radionuclides are reported. Radioactivity results of the 'Bikini Ash' determined soon after the explosion and after 31 years are compared. (V.N.). 17 refs.

Record - 8

<DIALOG File 103: >
1053773 ERA-11:003066, EDB-85:182936
Title: Renewable energy development in the Pacific Islands: narrowing the options
Author: Schaller, D.A.
Affiliation: Black Hawk Associates, Denver, Colorado
Source: Proc. Annu. Meet. - Am. Sect. Int. Sol. Energy Soc. (United States) v 6.
Date: Jun 1983 607-612 p.
Coden: PMSID
Document Type: Journal Article
Language: English
Journal Announcement: EDB8511
Subfile: ERA (Energy Research Abstracts).
Work Location: United States
Abstract: The United States flag territories and the emerging nations of the Trust Territory of the Pacific Islands have accelerated their consideration of renewable energy resource and technology options. The US Congress enacted Public Law 96-597, mandating a two year examination of the renewable energy potential of these islands. Contrary to much of the initial optimism, several factors have been identified which now caution against the early success of many renewable energy technologies in the

region. However, there remains a reduced number of sitespecific options for the islands. Planning for these near-term opportunities should have a greater chance of success given the understandings developed in the course of the two year project.

Record - 9

<DIALOG File 103: >
968443 AIX-16:050004, EDB-85:106135
Title: Redistribution of fallout radionuclides in Enewetak Atoll lagoon sediments by callianassid bioturbation
Author: McMurtry, G.M.; Schneider, R.C. (Hawaii Univ., Honolulu (USA). Hawaii Inst. of Geophysics); Colin, P.L. (Hawaii Inst. of Marine Biology, Honolulu (USA)); Buddemeier, R.W. (California Univ., Livermore (USA). Lawrence Livermore Lab.); Suchanek, T.H. (Fairleigh Dickinson Univ., St. Croix, Virgin Islands (USA). West Indies Lab.)
Source: Nature (London) (United Kingdom) v 313:6004.
Date: 21 Feb 1985 674-677 p.
Coden: NATUA
Document Type: Journal Article; Numerical data
Language: English
Journal Announcement: EDB8507
Work Location: United States
Abstract: The lagoon sediments of Enewetak Atoll in the Marshall Islands contain a large selection of fallout radionuclides as a result of 43 nuclear weapon tests conducted there between 1948 and 1958. The authors report elevated fallout radionuclide concentrations buried more deeply in the lagoon sediments and evidence of burrowing into the sediment by several species of callianassid ghost shrimp (Crustacea: Thalassinidea) which has displaced highly radioactive sediment. The burrowing activities of callianassids, which are ubiquitous on the lagoon floor, facilitate radionuclide redistribution and complicate the fallout radionuclide inventory of the lagoon.

Record - 10

<DIALOG File 103: >
942417 EDB-85:080106
Title: Comparison of radionuclide concentrations in 1956 and 1973 Enewetak beach material
Author: Cohen, N.; Rahon, T.E.; Hirshfield, H.
Affiliation: New York Univ. Medical Center, NY
Source: Health Phys. (United Kingdom) v 48:2.
Date: Feb 1985 228-230 p.
Coden: HLTPA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8505
Work Location: United States
Abstract: During the period 1948-1958, approximately 40 nuclear weapons tests were performed on the Enewetak Atoll in the Marshall Islands of the central Pacific Ocean. In 1973, the results of a survey contracted by the US Atomic Energy Commission specified that extensive decontamination of the land areas would be necessary before the people of Enewetak could return to the atoll. During Operation Redwing in 1956, several members of the New

York University Departments of Biology and Environmental Medicine visited the atoll and collected water, plankton and beach coral samples to study the distribution of foraminifera among the islands of Enewetak and other nearby atolls. Of the specimens collected, 22 samples of beach material from the highly contaminated northern islands of Enewetak remained intact and were available for study. Analyses of the radionuclide concentrations of these samples have provided interesting information regarding the levels of contamination that existed on Enewetak at that time.

Record - 11

<DIALOG File 103: >
462231 EDB-85:068963
Title: Air-to-sea fluxes of lipids at enewetak atoll
Author: Zafiriou, O.C.; Gagosian, R.B.; Peltzer, E.T.; Alford, J.B.; Loder, T.
Affiliation: Department of Chemistry, Woods Hole Oceanographic Institution, Massachusetts
Source: J. Geophys. Res. (United States) v 90:D1.
Date: 20 Feb 1985 2409-2424 p.
Coden: JGREA
Document Type: Journal Article
Language: English
Journal Announcement: INS8505
Subfile: INS (US Atomindex input).
Work Location: United States
Abstract: We report data for the Enewetak site of the SEAREX program from the rainy season in 1979. The concentrations of n-alkanes, n-alkanols, sterols, n-alkanoic acids and their salts, and total organic compounds in rain are reported, as well as the apparent gaseous hydrocarbon concentrations. These data and information on the particulate forms are analyzed in conjunction with ancillary chemical and meterological data to draw inferences about sources, fluxes, and chemical speciations. While the higher molecular weight lipid biomarker components are exclusively terrestrial, the organic carbon in rain may be derived from atmospheric transformations of terrestrial carbon. Distinctively marine components are nearly absent. Comparison of the scavenging ratios of the organic components in rain vs. those for clays reveals that the alkanoic acids and the higher molecular weight alkanols behave as essentially particulate materials, whereas lower alkanols and most hydrocarbons show much higher scavenging ratios, probably due to the involvement of a gaseous phase or sampling artifact. Vaporization in the atmosphere and scaveging of a gas phase would lead to higher scaveging ratios; vaporization during sampling would give low aerosol concentrations and high gas-phase concentrations, leading to high scavening ratios. The major fluxes at Enewetak result from rain rather than dry deposition, and extrapolating the measured values to meaningful annual averages requires adjustment for seasonally varying source intensity and rain dynamics. Aerosol data for other seasons and other substances are used to correct for source-strength intensity variations, and a /sup 210/Pb/organic compound correlation is established and extrapolated to adjust for rainfall volume effects.

Record - 12

<DIALOG File 103: >

Record - 14

<DIALOG File 103: >
278547 ERA-09:025070, EDB-84:076307
Title: Relationship between plutonium activity densities of airborne and surface soils
Author: Sehmel, G.A.
Affiliation: Pacific Northwest Lab., Richland, WA
Source: Health Phys. (United Kingdom) v 45:6.
Date: Dec 1983 1047-1050 p.
Coden: HLTPA
Contract No.: AC06-76RL01830
Document Type: Journal Article
Language: English
Journal Announcement: EDB8405
Subfile: ERA (Energy Research Abstracts).
Work Location: United States
Abstract: The purpose here is to summarize data for plutonium as a pollutant on airborne and surface soils, if both are available at study sites, and to examine the data for relationships between plutonium concentrations on airborne soils and on surface soils near the airborne particulate sampling sites. In practice, surface soil samples are actually soil samples taken to a sampling depth. Only data for sites will be summarized for which the plutonium concentrations on both airborne and surface soils have been investigated. These sites include the Bikini Atoll, the Hanford Site, and Rocky Flats.

Record - 15

<DIALOG File 103: >
230546 EDB-84:028136
Title: Coal as an option for power generation in U.S. territories of the Pacific
Author: Borg, I.Y.
Affiliation: Lawrence Livermore National Laboratory, Livermore, CA
Source: Energy (Oxford) (United Kingdom) v 7:11.
Date: Nov 1982 875-895 p.
Coden: ENEYD
Document Type: Journal Article
Language: English
Journal Announcement: ERA8312
Subfile: ERA (Energy Research Abstracts).
Work Location: United States
Abstract: General considerations relating to the use of coal in U.S. territories and trust territories of the Pacific suggest that coal is a viable option for power generation. Future coal supplies, principally from Australia and the west coast of America, promise to be more than adequate. Except for Guam, with peak power requirements on the order of 175 MW /SUB e/ , most territories have current, albeit inadequate, installations of 1-25 MW /SUB e/ . Turnkey, conventional-coal-fired, electrical-power generating systems are available in that size range. Fluidized bed combustion is another option currently being commercialized. Its use has clear environmental advantages and a variety of fuels (e.g. coal, heavy oils, biomass, etc.) may be employed without interruption of power generation. U.S. environmental laws, such as the Clean Air Act, are now

Record - 14

<DIALOG File 103: >
278547 ERA-09:025070, EDB-84:076307
  Title: Relationship between plutonium activity densities of airborne and surface soils
  Author: Sehmel, G.A.
  Affiliation: Pacific Northwest Lab., Richland, WA
  Source: Health Phys. (United Kingdom) v 45:6.
  Date: Dec 1983 1047-1050 p.
  Coden: HLTPA
  Contract No.: AC06-76RL01830
  Document Type: Journal Article
  Language: English
  Journal Announcement: EDB8405
  Subfile: ERA (Energy Research Abstracts).
  Work Location: United States
  Abstract: The purpose here is to summarize data for plutonium as a pollutant on airborne and surface soils, if both are available at study sites, and to examine the data for relationships between plutonium concentrations on airborne soils and on surface soils near the airborne particulate sampling sites. In practice, surface soil samples are actually soil samples taken to a sampling depth. Only data for sites will be summarized for which the plutonium concentrations on both airborne and surface soils have been investigated. These sites include the Bikini Atoll, the Hanford Site, and Rocky Flats.

Record - 15

<DIALOG File 103: >
230546 EDB-84:028136
  Title: Coal as an option for power generation in U.S. territories of the Pacific
  Author: Borg, I.Y.
  Affiliation: Lawrence Livermore National Laboratory, Livermore, CA
  Source: Energy (Oxford) (United Kingdom) v 7:11.
  Date: Nov 1982 875-895 p.
  Coden: ENEYD
  Document Type: Journal Article
  Language: English
  Journal Announcement: ERA8312
  Subfile: ERA (Energy Research Abstracts).
  Work Location: United States
  Abstract: General considerations relating to the use of coal in U.S. territories and trust territories of the Pacific suggest that coal is a viable option for power generation. Future coal supplies, principally from Australia and the west coast of America, promise to be more than adequate. Except for Guam, with peak power requirements on the order of 175 MW /SUB e/ , most territories have current, albeit inadequate, installations of 1-25 MW /SUB e/ . Turnkey, conventional-coal-fired, electrical-power generating systems are available in that size range. Fluidized bed combustion is another option currently being commercialized. Its use has clear environmental advantages and a variety of fuels (e.g. coal, heavy oils, biomass, etc.) may be employed without interruption of power generation. U.S. environmental laws, such as the Clean Air Act, are now

applicable to Guam and American Samoa; the trust territories are exempt. The principal problems with coal use in the territories, apart from the shallow draft of most harbors, are the limited amount of land available and the high capital costs associated with conversion. Ocean dumping of ash and sludge can be permitted under existing Environmental Protection Agency regulations, and barge-mounted power installations are not out of the question. The feasibility of converting from oil-fired to coal-fired electrical-power generating systems must be determined with site-specific information.

Record - 16

<DIALOG File 103: >
038525 AIX-14:717422, ERA-08:013400, EDB-83:038528
Title: ..beta.. and ..gamma..-comparative dose estimates on Enewetak Atoll
Author: Crase, K.W.; Gudiksen, P.H.; Robison, W.L. (California Univ., Livermore (USA). Lawrence Livermore National Lab.)
Source: Health Phys. (United Kingdom) v 42:5.
Date: May 1982 559-564 p.
Coden: HLTPA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8301
Subfile: ERA (Energy Research Abstracts).
Work Location: United States
Abstract: Enewetak Atoll in the Pacific is used for atmospheric testing of U.S. nuclear weapons. Beta dose and ..gamma..-ray exposure measurements were made on two islands of the Enewetak Atoll during July-August 1976 to determine the ..beta.. and low energy ..gamma..-contribution to the total external radiation doses to the returning Marshallese. Measurements were made at numerous locations with thermoluminescent dosimeters (TLD), pressurized ionization chambers, portable NaI detectors, and thin-window pancake GM probes. Results of the TLD measurements with and without a in air is due to ..beta..- or low energy ..gamma..-contribution. The contribution at any particular site, however, is reduced by vegetation. Integral 30-yr external shallow dose estimates for future inhabitants were made and compared with external dose estimates of a previous large scale radiological survey. Integral 30-yr shallow external dose estimates are 25-50% higher than whole body estimates. Due to the low penetrating ability of the ..beta..'s or low energy ..gamma..'s, however, several remedial actions can be taken to reduce the shallow dose contribution to the total external dose.

Record - 17

<DIALOG File 103: >
035773 EDB-83:035776
Title: Magnitudes and sources of precipitation and dry deposition fluxes of industrial and natural leads to the North Pacific at Enewetak
Author: Settle, D.M.; Patterson, C.C.
Affiliation: Division of Geological and Planetary Sciences, California Institute of Technology, Pasadena, California 91125
Source: J. Geophys. Res. (United States) v 87:C11.
Date: 20 Oct 1982 8857-8869 p.

Coden: JGREA
Document Type: Journal Article
Language: English
Journal Announcement: INS8212
Subfile: INS (US Atomindex input).
Work Location: United States
Abstract: A total atmospheric PB input flux of 7 ng Pb cm/sup -2/ yr/sup -1/ was measured in the North Pacific Easterlies at Enewetak. Parameters used to measure this flux were ratio of dry deposition flux to precipitation flux; Pb//sup 210/ Pb in precipitation and seawater; /sup 210/Pb flux; washout factor; and Pb concentrations in air, rain, and dry deposition deposits. Relations among these parameters estabilished at Enewetak were used to recompute and comfirm previous estimates of lead fluxes to the oceans (ng Pb cm/sup -2/ yr/sup -1/) at the following locations: North Altantic Westerlies, 170; North Pacific Westerlies, 50; and South Pacific Easterlies, 3. Prehistoric lead output fluxes to sediments (ng Pb cm/sup -2/ yr/sup -1/) at these locations have been previously measured and were 4 (Enewetak); 30 North Atlantic Westerlies; 3 North Pacific Westerlies; 4 South Pacific Easterlies. These data show that the rates of atmospheric inputs of lead to the oceans vary directly with variations in rates of upwind emission of industrial lead from urban complexes on land. In the North Pacific and North Atlantic, present rates of atmospheric lead inputs are 10-fold greater than prehistoric outputs. In equatorial regions, present inputs and past outputs are more nearly equal. These observations disclose the effects of intense industrial atmospheric emissions of lead in the northern hemisphere westerlies which have overwhelmed prehistoric natural fluxes of lead to the oceans. The average concentration of lead in marine air at Enewetak is 170n pg m/sup -3/ and varies less than a factor of 2 from that mean. One to 15% of this lead comes from seaspray, while the remainder comes from sources on land. About 90% of the seaspray lead is industrial, while 80 to 99% of that originating from land sources is industrial. Concentrations of lead in rain at Enewetak range from 6 to 63 pg/g with a mean value of 28.

Record - 19

<DIALOG File 103: >
(23367 ERA-08:009467, EDB-83:023369
Title: Technology transfer of small-scale energy technologies in the US Pacific Territories
Author: Case, C.W.
Affiliation: Lawrence Berkeley Lab., CA
Conference Title: American section of the International Solar Energy Society conference
Conference Location: Houston, TX, USA Conference Date: 1 Jun 1982
Source: Proc. Annu. Meet. - Am. Sect. Int. Sol. Energy Soc. (United States) v 5.
Date: 1982 1169-1174 p.
Coden: PMSID
Report No.: CONF-820629-Vol.5-Pt.2
Contract No.: W-7405-ENG-48
Document Type: Journal Article; Conference literature
Language: English
Journal Announcement: EPA8301
Subfile: EPA (Energy Abstracts for Policy Analysis); ERA (Energy

Research Abstracts).
Work Location: United States
Abstract: From 1977 to 1981 the Department of Energy has awarded 32 grants for small-scale energy projects in the US Pacific Territories. A critical issue with these projects has been transferring the technology within the community once the project has been completed. Certain projects are more successful at this than others. There are elements common to projects which are the most successful in this regard. In addition, there appear to be five different types of technology transfer processes. This paper identifies these processes, illustrates each with a case study, and points out the common elements. Perhaps this information can be used when designing other projects to facilitate technology transfer in developing countries.

Record - 19

<DIALOG File 104: >
936320 ERA-07:041631, INS-82:012537, EDB-82:111172
Title: Dynamics of radionuclide exchange in the calcareous algae Halimeda at Enewetak Atoll
Author: Spies, R.B. (Lawrence Livermore Lab., CA); Marsh, K.V.; Kercher, J.R.
Source: Limnol. Oceanogr. (United States) v 26:1.
Date: 1981 74-85 p.
Coden: LIOCA
Contract No.: W-7405-ENG-48
Document Type: Journal Article
Language: English
Journal Announcement: EDB8207
Subfile: INS (US Atomindex input); ERA (Energy Research Abstracts).
Work Location: United States
Abstract: Measurements of /sup 239 +240/Pu in the detrital inclusions and in acid-soluble and acid-insoluble fractions of Halimeda macrophysa showed a 10-fold higher concentration in the acid-insoluble coenocytic filaments than in the acid-soluble fraction. In a depuration experiment with Halimeda incrassata at Enewetak Atoll the loss rate of six radionuclides was measured. Data for /sup 60/Co, /sup 137/Cs, and /sup 102//sup m/Rh were fit to loss curves by using one term for exponential loss; data for /sup 155/Eu, /sup 239 +240/Pu, and /sup 241/Am required two terms. For each radionuclide, compartment size and transfer functions were determined for the apropriate one- and two-compartment models. Of 26 possible two-compartment models, only seven gave solutions with our data. Nearly identical loss rates were obtained for /sup 155/Eu, /sup 239 +240/Pu, and /sup 241/Am in the fast-exchanging compartments for all seven models. The uptake rates for these nuclides were also similar when uptake rates were normalized to local sediment concentrations. The fast-exchanging compartment probably corresponds to the mucilage surface layer of the coenocytic filaments. The identity of the slow-exchanging compartment is less certain but it may correspond to the skeletal surface.

Record - 20

<DIALOG File 104: >
585702 AIX-13:653553, EDB-82:060544
Title: Tale of two islands: Bikini and Enewetak

Author: Alcalay, G. (Rutgers--the State Univ., New Brunswick, NJ (USA))
Source: Ecologist (United Kingdom) v 11:5.
Date: Sep-Oct 1981 222-227 p.
Coden: ECOGA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8202
Subfile: AIX (non-US Atomindex input).
Work Location: United States
Abstract: An account is given of (a) the transfer of the inhabitants of Bikini and Enewetok so that the US could use the islands for atomic bomb tests, and (b) the subsequent arrangements made for the return of the islanders. The effects of contamination of the islands and of fallout from the tests are described. Radiological and other problems are discussed.

Record - 21

<DIALOG File 104: >
376650 ERA-07:028550, EDB-82:051491
Title: Circulation in Enewetak Atoll lagoon
Author: Atkinson, M.; Smith, S.V.; Stroup, E.D.
Affiliation: Univ. of Hawaii, Kaneohe
Source: Limnol. Oceanogr. (United States) v 26:6.
Date: Nov 1981 1074-1083 p.
Coden: LIOCA
Contract No.: EY-77-S-08-1529
Document Type: Journal Article
Language: English
Journal Announcement: EDB8202
Subfile: ERA (Energy Research Abstracts); SAI (Science Applications Inc.).
Work Location: United States
Abstract: Currents at Enewetak Atoll, Marshall Islands, were measured on the reef margins, in the channels, and in the lagoon. Lagoon circulation is dominated by wind-driven downwind surface flow and an upwind middepth return flow. This wind-driven flow has the characteristics of an Ekman spiral in an enclosed sea. Lagoon flushing is accomplished primarily by surf-driven water input over the windward (eastern) reefs and southerly drift out the South Channel. Mean water residence time is 1 month, while water entering the northern portion of the atoll takes about 4 months to exit.

Record - 22

<DIALOG File 104: >
848420 AIX-12:629386, ERA-07:012387, EDB-82:023258
Title: /sup 60/Co and /sup 137/Cs long-term biological removal rate constants for the Marshallese population
Author: Miltenberger, R.P.; Lessard, E.T.; Greenhouse, N.A. (Brookhaven National Lab., Upton, NY (USA))
Source: Health Phys. (United Kingdom) v 40:5.
Date: May 1981 615-623 p.
Coden: HLTPA
Document Type: Journal Article
Language: English

Journal Announcement: EDB8110
Subfile: ERA (Energy Research Abstracts); AIX (non-US Atomindex input.
Work Location: United States
Abstract: Residents of Bikini Atoll were moved from their home Atoll on 31 August 1978. Since that time, they have been relocated either to Kili Island, or to Majuro and Ejit Islands at Majuro Atoll. Whole body counting and urine bioassay were performed on this population in January and May 1979, and body burdens for nuclides positively identified were determined from both techniques. Data from these measurements have been used to calculate long-term biological removal rate constants for /sup 137/Cs and /sup 60/Co and to relate the long-term rate constant for /sup 137/Cs to total body mass.

Record - 23

<DIALOG File 104: >
829767 AIX-12:534530, EDB-82:004602
Title: /sup 210/Pb in surface air at Enewetak and the Asian dust flux to the Pacific
Author: Turekian, K.K.; Cochran, J.K. (Yale Univ., New Haven, CT (USA). Dept. of Geology and Geophysics)
Source: Nature (London) (United Kingdom) v 292:5823.
Date: 6 Aug 1981 522-524 p.
Coden: NATUA
Document Type: Journal Article; Numerical data
Language: English
Journal Announcement: EDB8111
Subfile: AIX (non-US Atomindex input).
Work Location: United States
Abstract: Results are presented of measurements of /sup 210/Pb (and /sup 210/Po) collected during 1979 in an air filter system and a precipitation collector situated at Enewetak. The estimated /sup 210/Pb flux was found to be (0.15 +- 0.02 d.p.m. cm/sup -2/ yr/sup -1/) and the Asian dust flux (38 +- 20 ..mu..g cm/sup -2/ yr/sup -1/) at this location in the Pacific.

Record - 24

<DIALOG File 104: >
815220 EDB-81:133489
Title: Radioactive dust from nuclear detonation. Survey of the radioactive contamination of the No. 5 Fukuryu Maru
Author: Shimizu, S.; Akagi, H.; Goto, H.; Okamoto, S.; Ishida, T.; Kawai, Y.
Source: Bull. Inst. Chem. Res., Kyoto Univ. (Japan)
Date: 1955 1-3 p.
Coden: BICRA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8111
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: A collection of reports on investigation on No. 5 Fukuryu Maru, a fishing ship which was in the vicinity of the Bikini atoll when nuclear detonation occurred on March 1, 1954. The radiation dosage rate of contamination observed for combined ..beta..- and ..gamma..-radiation at

every part of the ship on March 19, April 21, and May 16 is recorded. The average value of total ..gamma..-dosage for the crew was supposed to lie between 200 and 500 r.

Record - 25

<DIALOG File 104: >
803602 EDB-81:111869
Title: Contamination of the fishes caught by the No. 5 Fukuryu Maru and the foods manufactured from these fishes
Author: Kikuchi, T.; Goto, H.; Kono, T.; Fujioka, S.; Sano, T.; Matsuki, T.; Watanabe, M.; Fujio, M.; Akagi, H.; Wakisaka, G.
Source: Bull. Inst. Chem. Res., Kyoto Univ. (Japan)
Date: 1954 35-38 p.
Coden: BICRA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8110
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: The radio-contaminated tunas and other fish caught by the ship in the vicinity of Bikini Atoll were studied. The contamination was caused directly by the radioactive ashes and was limited to the surface of the fish. No radioactivity was detected in muscles and bones. The contamination of tuna expressed as /sup 60/Co was 10/sup -3/ to 10/sup -3/ microcurie per sq. cm. of skin and 10/sup -1/ microcurie per g. scales.

Record - 26

<DIALOG File 104: >
809601 EDB-81:111865
Title: Radioactive substances found on the contaminated fish
Author: Kiba, T.; Ohashi, S.; Shibata, M.; Mizube, T.
Source: Bunseki Kagaku (Japan) v 3.
Date: 1954 361-363 p.
Coden: BNSKA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8110
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: Radiochemical investigation of the substance collected from the surface of tuna fish which were brought back by the No. 5 Fukuryu Maru was performed. Most of the radioactivity was found on the scales which could not be decontaminated by treating with H/sub 2/O; 90% of the activity was removed by washing the dried scales with 3N HCl. Paper chromatographic separation of the HCl fraction showed the presence of /sup 140/Ba, /sup 89/Sr, /sup 132/Te, and probably /sup 95/Zr, /sup 140/La, and rare earths.

Record - 27

<DIALOG File 104: >
797393 ERA-06:032475, EDB-81:106159
Title: Abundance, diversity, and resource use in an assemblage of Conus species in Enewetak lagoon

Author: Kohn, A.J.
Source: Pac. Sci. (United States) v 34:4.
Date: Oct 1980 359-369 p.
Coden: PASCA
Contract No.: AT-(29-2)-226; AT-(26-1)-628
Document Type: Journal Article
Language: English
Journal Announcement: EDB8109
Subfile: ERA (Energy Research Abstracts); TIC (Technical Information Center).
Work Location: United States
Abstract: Eight species of the gastropod genus Conus co-occur in sand substrate and an adjacent meadow of Halimeda stuposa in Enewetak lagoon, an unusually diverse assemblage for this type of habitat. Population density is high, and large species predominate; they represent all major feeding groups in the genus: predators on polychaetes, enteropneusts, gastropods, and fishes. Although the two most common Conus species eat primarily the same prey species, they mainly take prey of different sizes in different microhabitats. The results suggest that sufficient microhabitat heterogeneity and prey diversity exist to permit spatial segregation and specialization on different prey resources by the different Conus species present. Between-species dissimilarity in resource use thus agrees with previous observations on more diverse Conus assemblages of subtidal coral reef platforms. Prey species diversity is inversely related to body size, confirming and extending a previously identified pattern among Conus species that prey on sedentary polychaetes.

Record - 30

>DIALOG File 104: >
7983403 EDB-81:100608
Title: Radioactivity in the pelagic fish. I. Distribution of radioactivity in various tissues of fish
Author: Amano, K.; Yamada, K.; Ito, M.; Takase, A.; Tanaka, S.
Source: Nippon Suisan Gakkaishi (Japan) v 20.
Date: 1953 907-915 p.
Coden: NSUGA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8109
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: Pelagic fishes caught after an atomic explosion experiment at Bikini Atolls in the Pacific were examined by radiochemical techniques. Generally the radioactivity was large in liver, kidney, gall bladder and heart, and then in pyloric ceca, stomach, intestine, and gonad; there was little activity in skin, bone, and muscles. This order varied with species. Large radioactivity of the stomach contents did not necessarily mean large activity in the tissues, indicating considerable participation of diffusion of sea water into the fish body. Muscles from various sites showed slight difference in the activity. The dark muscle, however, showed several times as large activity as ordinary muscle.

Record - 29

<DIALOG File 104: >
792342 EDB-81:100607
Title: Distribution of the radioactivity in the sea around Bikini Atoll in June 1954
Author: Miyake, Y.; Sugiura, Y.; Kaneda, K.
Affiliation: Meteorol. Research Inst., Tokyo, Japan
Source: Rec. Oceanogr. Works Jpn. (Japan) v 2:1.
Date: 1955 33-44 p.
Coden: ROWJA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8109
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: Vertical and horizontal profiles are given. The active substances are apparently in true solution as ionic or colloidal species.

Record - 30

<DIALOG File 104: >
792292 EDB-81:100557
Title: Electron microscopy of the Bikini ash which covered the fishing boat, fifth Fukuryu Maru
Author: Suito, E.; Takiyama, K.
Source: Nagaku (Tokyo) (Japan) v 25.
Date: 1955 37-40 p.
Coden: NAGTA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8109
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: The electron microscopy diffraction study of the ash produced by the H-bomb experiment revealed that the fine white powder had a nearly uniform diameter of particles (about 0.3 mm) and was identified as calcite crystals. A coral reef of aragonite might have been decomposed into CaO or into an atomic state owing to the bomb explosion and then recrystallized into calcite by the action of H/sub 2/O and CO/sub 2/ in the air occluding radioactive elements.

Record - 31

<DIALOG File 104: >
774742 AIX-12:591882, EDB-81:083004
Title: Aftermath of Bikini
Author: Alcalay, G.H.
Source: Ecologist (United Kingdom) v 10:10.
Date: Dec 1980 346-351 p.
Coden: ECOGA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8103
Subfile: AIX (non-US Atomindex input).
Work Location: United Kingdom
Abstract: An account is given of the effects of the US atomic weapons

testing programme on the life and health of the Marshall Islanders.

Record - 32

<DIALOG File 104: >
767799 ERA-06:022573, EDB-81:076060
Title: Survey of ciguatera at Enewetak and Bikini, Marshall Islands, with notes on the systematics and food habits of ciguatoxic fishes
Author: Randall, J.E.
Affiliation: Bernice P. Bishop Museum, Honolulu, HI
Source: Fish. Bull. (United States) v 78:2.
Date: Apr 1980 201-249 p.
Coden: FSYBA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8106
Subfile: ERA (Energy Research Abstracts); TIC (Technical Information Center).
Work Location: United States
Abstract: A total of 551 specimens of 48 species of potentially ciguatoxic fishes from Enewetak and 256 specimens of 23 species from Bikini, Marshall Islands, were tested for ciguatoxin by feeding liver or liver and viscera from these fishes to mongooses at 10% body weight (except for sharks, when only muscle tissue was used). The fishes are representatives of the following families: Orectolobidae, Carcharhinidae, Dasyatidae, Muraenicae, Holocentridae, Sphyraenidae, Mugilidae, Serranidae, Lutjanidae, Lethrinidae, Carangidae, Scombridae, Labridae, Scaridae, Acanthuridae, and Balistidae. The species selected were all ones for which toxicity can be expected, including the worst offenders from reports of ciguatera throughout Oceania; only moderate to large-sized adults were tested. In all, 37.3% of the fishes from Enewetak and 19.7% from Bikini gave a positive reaction for ciguatoxin. Because liver and other viscera are more toxic than muscle, the percentage of positive reactions at the level which might cause illness in humans eating only the flesh of these fishes collectively would drop to 16.2 for Enewetak and 1.4 for Bikini. This level of toxicity is not regarded as high for Pacific islands, in general. Because ciguatoxin is acquired through feeding, the food habits of these fishes were investigated. Most of the highly toxic species, including seven of the eight causing severe illness or death in the test animals (Lycodontis javanicus, Cephalopholis argus, Epinephelus hoedtii, E. microdon, Plectropomus leopardus, Aprion virescens, and Lutjanus bohar) are primarily piscivorous.

Record - 33

<DIALOG File 104: >
739803 AIX-12:585036, EDB-81:048059
Title: Whole body counting results from 1974 to 1979 for Bikini Island residents
Author: Miltenberger, R.P.; Greenhouse, N.A.; Lessard, E.T. (Brookhaven National Lab., Upton, NY (USA))
Source: Health Phys. (United Kingdom) v 39:3.
Date: Sep 1980 395-407 p.
Coden: HLTPA
Document Type: Journal Article; Numerical data

Language: English
Journal Announcement: EDB8103
Subfile: AIX (non-US Atomindex input).
Work Location: United States
Abstract: Three body burden measurements of the Bikini Island population were conducted from 1974 to 1978 at Bikini Island. During this time, the mean /sup 137/Cs body burden of the adult Bikini population increased by a factor of 20. This dramatic elevation of the body burden appears to be solely attributable to increased availability of locally grown food products, specifically coconuts and coconut plant products. In January 1979, 45% of the individuals that were whole body counted in April 1978 were recounted approx. 145 days after the Bikini Island population departed from Bikini Atoll. These results show that the adult population /sup 137/Cs body burden decreased by a factor of 2.9 between the April 1978 and January 1979 in vivo measurements.

Record - 34

<DIALOG File 104: >
739350 EDB-81:041605
Title: Absorption by plants of unseparated fission products derived from the hydrogen bomb detonated in the spring of 1954 at Bikini Atoll
Author: Yatazawa, M.; Ishihara, T.
Source: Nippon Nogei Kagaku Kaishi (Japan) v 29.
Date: 1955 229-234 p.
Coden: NNKKA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8103
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: In a radiochemical survey on the contamination of white clover grown in a field, sample plants were obtained from the same grass land at 3 different times. The ash of each sample was analyzed. It was concluded that radioactive alkaline earths, especially /sup 89/Sr and /sup 90/Sr were selectively accumulated in plants. The selective absorption of Bikini ash by rice plants was also studied. Noncontaminated rice plants were cultivated in the radioactive solution produced from Bikini ash for 20 days. Then the absorption by plants of radioactive elements was examined by chromatographic exchange. From the elution curve and ratio of radioactivity of each separation group, it has become clear that rice plants accumulated larger parts of fission products in their roots and selectively absorbed and translocated radioactive alkaline earths in their shoots even if the absorption ratio of Bikini fission products was comparatively small.

Record - 35

<DIALOG File 104: >
720498 EDB-81:028751
Title: Radioactivity in certain pelagic fish. IV. Separation and confirmation of radioiron in skipjack
Author: Amano, K.; Tozawa, H.; Takase, A.
Source: Nippon Suisan Gakkaishi (Japan) v 21.
Date: 1956 1261-1268 p.
Coden: NSUGA

Document Type: Journal Article
Language: English
Journal Announcement: EDB8103
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: Incinerated liver (0.2g.) and stomach (0.15g.) of a skipjack caught near the Bikini Atoll on June 19, 1954, were dissolved in 0.2N HCl, filtered, and the filtrates made up to 100 cc.; the radioactivities were 130 and 86 counts/min./cc., respectively. The solutions were passed through column of Dowex 50. Elution with 0.5% oxalic acid gave powerful radioactivity with liver, but very weak with stomach. Elution with a solution of NH/sub 4/ citrate at pH 3.5 from both samples showed strong radioactivity, probably due to the presence of /sup 65/Zn. Distinct radioactivity was also detected in the NH/sub 4/ citrate eluate at pH 4.1 from the liver, but not from the stomach; this eluted element emitted no radioactive element in the 0.5% oxalic acid elution showed that it was Fe; elution by 0.6M HCl after adsorption to Dowex 1 supported this result. /sup 95/Zr and /sup 95/Nb were indicated from these data to be absent. The pulse height distribution curve of ..gamma..-ray emitted by the element also indicated that it was Fe. However, the radiation decay curve differed considerably from that of /sup 59/Fe, suggesting the presence of radioactive element with longer half-life. Comparison of the absorption coefficient of Al, Ag, and Au for x rays from /sup 55/Fe, /sup 63/Ni and the isolated element indicated that the element was /sup 55/Fe.

Record - 36

<DIALOG File 104: >
780297 AIX-12:581491, EDB-81:028550
Title: Dietary radioactivity intake from bioassay data: a model applied to /sup 137/Cs intake by Bikini Island residents
Author: Lessard, E.T.; Miltenberger, R.P.; Greenhouse, N.A. (Brookhaven National Lab., Upton, NY (USA))
Source: Health Phys. (United Kingdom) v 39:2.
Date: Aug 1980 177-183 p.
Coden: HLTPA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8102
Subfile: AIX (non-US Atomindex input).
Work Location: United States
Abstract: This paper presents an equation with which the constant daily activity ingestion rate may be calculated from sequentially obtained whole body counting and urine bioassay data. The model was developed to relate whole body counting results to urinary activity excretion data for /sup 137/Cs in the Marshallese population at Bikini Island for whom accurate dietary intake and residence interval information were not available. The technique is applicable to radioactive material whose biological and physical removal mechanisms are linear first order processes described by appropriate rate constants which give the instantaneous fraction of atoms transferred from compartments in the body to urine per unit time, and the instantaneous fraction of atoms decaying per unit time.

Record - 37

<DIALOG File 104: >
719809 EDB-81:028062
Title: Radioactivity of fish II.
Author: Obo, F.; Wakamatsu, C.; Hiwatashi, Y.; Tamari, T.; Yoshitake, N; Tajima, D.
Source: Igaku To Seibutsugaku (Japan) v 34.
Date: 1955 255-258 p.
Coden: IGSBA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8103
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: Various tissues of fish captured east of Formosa after the Bikini H-Bomb experiment had radioactivities (detected on May 27, 1954) in counts/min/ash from 5 g. fresh tissues: blood 2414, eyeball 49, heart muscle 111, white muscle 11, red muscle (chiai) 123, bone 46, skin 28, pancreas 131, liver 522, stomach muscle 106, stomach contents 52, spermatozoa 47, and spleen 504. High radioactivities in blood and blood synthesizing organs (liver and spleen) were emphasized. The radioactivity in the blood had a half-life of 34 to 35 days and the maximum energy of

Record - 38

<DIALOG File 104: >
709454 EDB-81:017705
Title: Radiochemical studies on Bikini ashes
Author: Shiokawa, T.
Source: Bunseki Kagaku (Japan) v 3.
Date: 1954 349-357 p.
Coden: BNSKA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8102
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: Decay characteristics of the ashes which were brought back by the crew of the Fukuryu Maru No. 5 were: untreated ash I = ct/sup -1/ /sup 81/, water soluble part t/sup -2/ /sup 71/, insoluble part t/sup -1/ /sup 63/. Radioactive species separated by chemical method with carrier or collector were: nuclide, activity of nuclide (counts/min)/activity of original sample (counts/min), and the date of separation, /sup 89/Sr 6000/80 X 10/sup 4/, April 24; /sup 95/Zr, 280/80 x 10/sup 4/, -; /sup 111/Ag, 200/200 x 10/sup 4/, April 14; /sup 103/Ru, 2.300/25 x 10/sup 4/, etc.

Record - 39

<DIALOG File 104: >
704843 EDB-81:013093
Title: Investigations on the radioactive contamination of crop plants as a result of hydrogen-bomb detonation. Part II. Root and foliage uptake of Bikini ash
Author: Mitsui, S.; Aso, S.; Tensho, K.; Kumazawa, K.
Source: Soil Plant Food (Tokyo) (Japan) v 1.

Date: 1955 17-18 p.
Coden: SPFOA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8101
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: Bikini ash (I) was prepared by igniting the heavily contaminated substances on board No. 5 Fukuryu Maru at 650/sup 0/. The I was extracted with H/sub 2/O, concentrated HCl, and 2% citric acid. The acid extracts were neutralized to pH 5.0 to 5.5 with NaOH. Squash-plant leaves were painted with these extracts, after 6 days the plant parts were assayed for radioactivity. Uptake and translocation of radioactive fission products to all plant parts was found, but with the major portion in above ground parts. Wheat seeds grown in natural and synthetic soil mixtures showed a much depressed uptake of fission materials. Most of the radioactivity was found in the roots. About 10% was translocated to aerial portions of plants.

Record - 40

<DIALOG File 104: >
704834 EDB-81:013084
Title: Separation of the radioactive elements in the muscle of skipjack by ion-exchange resin, and confirmation of the presence of radioactive zinc
Author: Takase, A.
Source: Koshu Eiseiin Kenkyu Hokoku (Japan) v 4:3.
Date: 1955 22-26 p.
Coden: KEHHA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8101
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: An ashed sample of shipjack muscle caught in June, 1954, near Bikini Atoll was analyzed for elements separated by an anion-exchange method (Dowex 50) with the use of 0.2N HCl, 0.5% oxalic acid, and 2% NH/sub 4/ citrate as eluents at each pH value of 3.53, 2.18, 4.60, 5.02, 5.64, and 5.4[illegible].

Record - 41

<DIALOG File 104: >
703833 EDB-81:012083
Title: Artificial radioactivity in the sea near Japan
Author: Miyake, Y.; Sugiura, Y.; Kameda, K.
Source: Pap. Meteorol. Geophys. (Tokyo) (Japan) v 6.
Date: 1955 90-92 p.
Coden: PMGTA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8101
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: Sea water collected around the Bikini Atoll from July to

September 1954, was analyzed for total radioactivity by adding 2 g solid NH/sub 4/Cl, 1 ml of an aqueous solution of Ferric alum (86.3 g/l), and 1 ml of BaCl/sub 2/ solution (17.8 g/l) to 1 l of H/sub 2/O heated to 60 to 70 while being stirred. NH/sub 4/OH was added until the solution was faintly pink to phenolphthalein. After 2-min boiling the precipitate settled on standing for several hours at room temperature before being filtered on a filter disk lain above a glass filter. Counting rates of 2.1 +- 1.6 to 140.8 +- 6.8 counts/min/l were obtained.

Record - 42

<DIALOG File 104: >
703806 EDB-81:012056
Title: Radioactive contamination of plants in Japan covered with rainout from H-bomb detonations in March-May 1954 at Bikini Atoll, Marshall Island. Part II. Radioactive elements of contaminated plants
Author: Yatazawa, M.
Source: Soil Plant Food (Tokyo) (Japan) v 1.
Date: 1955 23-24 p.
Coden: SPFDA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8101
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: Following a fallout estimated at 0.2 microcurie/l, Trifolium repens, Astragalus sinicus, and Rumex japonicus were harvested and analyzed for radioactivity. Most of the radioactivity (2300 to 4700 counts/min/50 g plant ash) was associated with oxalate precipitate. A small amount of activity in the Zn group is attributed to /sup 65/Zn produced by reaction /sup 64/Zn (n,..gamma..) from Zn employed in the mechanical parts of the bomb. Sr-Ba radioactivity was 0.1 that of the rare earth group. Distribution of the radioactive elements was nearly the same as that found on the No. 5 Fukuryu-Maru.

Record - 43

<DIALOG File 104: >
703773 EDB-81:012023
Title: Damping of radioactivity of the Bikini ashes
Author: Horie, K.
Source: Kagaku (Tokyo) (Japan) v 25.
Date: 1955 636-637 p.
Coden: KAGTA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8101
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: The radioactivity (..beta..- and ..gamma..-radiation) of the H-bomb ashes was measured over a period of 600 days by means of an electroscope and a Geiger-Mueller counter. Absorption by Al foils shows that the half-life is shorter for radiation of lower energy.

Record - 44

<DIALOG File 104: >
703744 EDB-81:011994
Title: Ionization of the atmosphere in the New York area before and after the Bikini atom-bomb test
Author: Hess, V.F.; Luger, P.
Source: Phys. Rev. (United States) v 70.
Date: 1946 564-565 p.
Coden: PHRVA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8101
Subfile: TIC (Technical Information Center).
Work Location: United States
Abstract: In the interval June 29 through July 10, 1946, no atmospheric ionization due to the atomic bomb was observed.

Record - 45

<DIALOG File 104: >
703742 EDB-81:011992
Title: On the radioactivity of the atmosphere
Author: Garrigue, H.
(In French)
Source: C. R. Hebd. Seances Acad. Sci. (France) v 228.
Date: 1949 1583-1584 p.
Coden: COREA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8101
Subfile: TIC (Technical Information Center).
Work Location: France
Abstract: An unknown radioactive substance, of a 25-- hr half life period, was recorded in July-August, 1946, by an ionization chamber at 6000 m altitude (from an airplane), the content measured being about 2 x 10/sup -18/ curie. In July to August, 1948, at altitudes 7300 to 8700 m, the content found was much lower (0.005 to 0.02 curie). It is surmised that the phenomenon might be traced to the atomic bomb explosion at Bikini on July 1, 1946. Other hypotheses are meteoric origin or a nuclear reaction due to cosmic rays.

Record - 46

<DIALOG File 104: >
703727 EDB-81:011977
Title: Radioactive ashes on the fifth Fukuryu-Maru, the fishing boat that suffered from the hydrogen bomb test on March 1, 1954
Author: Kimura, K.
Source: Kagaku (Tokyo) (Japan) v 24.
Date: 1954 300-302 p.
Coden: KAGTA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8101
Subfile: TIC (Technical Information Center).

Work Location: Japan
Abstract: By ordinary procedures with carriers and by separation with cation-exchange resins, the ashes were analyzed and the following radioactive nuclides were detected, /sup 95/Zr (65 days), /sup 95/Nb (35 days), /sup 132/I (2.4 h), /sup 132/Te (77.7 h), /sup 95m/Nb (90 h), /sup 131/I (8.141 days), /sup 140/Ba (12.8 days), /sup 140/La (40.0 h), /sup 89/Sr (53 days), /sup 127/Sb (93 h), /sup 103/Ru (39.8 days), and /sup 106/Ru (1.0 yr), etc.

Record - 47

<DIALOG File 104: >
703725 EDB-81:011975
Title: Radioactive dust from No. 5 Fukuryu Maru
Author: Yamatera, H.
Source: Bunseki Kagaku (Japan) v 3.
Date: 1954 356-361 p.
Coden: BNSKA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8101
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: Analysis of radioactive dust collected on board No. 5 Fukuryu Maru were done by chemical separation and measurement of ..gamma..-ray energy and half-life of each species. Results are summarized as follows, radioactive nuclide and approximate percentage of radioactivity given: /sup 103/Ru, 4.3 to 57; /sup 106/Ru, 1.4; /sup 129/Te, 1.3; /sup 131/I, 4.5; /sup 133/I, 1.0; /sup 132/Te, 1.0; etc.

Record - 48

<DIALOG File 104: >
703763 EDB-81:011973
Title: Radiochemical analysis of Bikini ashes fallen on board the No. 5 Fukuryu Maru on March 1, 1954
Author: Kimura, K.
Source: Bunseki Kagaku (Japan) v 3.
Date: 1954 338-348 p.
Coden: BNSKA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8101
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: Comprehensive analysis was done in order to find the proper method of medical treatment for the victim fishermen on board. Analysis was started on March 18, and ash was found to consist mostly of Ca(OH)/sub 2/, activity of which was 0.37 mc/g on April 23. Cations of the 3rd group (especially rare-earth metals) and 5th group were found to have strong activity by chemical separation. Fractions of each group, anions, Zr and Nb fraction, and U fraction were separated by an ion-exchange method.

Record - 49

DIALOG File 104: >
703062 EDB-81:011312
Title: Results of atmospheric analyses done at Tulsa, Oklahoma, during the period neighboring the time of the second Bikini atomic bomb test
Author: Fearson, R.E.; Engle, W.; Thayer, J.; Swift, G.; Johnson, I.
Source: Phys. Rev. (United States) v 70.
Date: 1946 564 p.
Coden: PHRVA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8101
Subfile: TIC (Technical Information Center).
Work Location: United States
Abstract: Radioactive concentrates were prepared from the atmosphere. Data of July 26 and August 30, 1946, represent the active deposits of Rn and Tn. The data of July 28, based on two samples with initial intensities of 5 x 10/sup -10/ curie, are explained by assuming that the concentrate is the active deposit of a new rare radioactive gas of at. no. 86, with a half-life of 32 min.; it corresponds with at least two members of an unreported radioactive series.

Record - 50

DIALOG File 104: >
702535 EDB-81:010735
Title: Radiochemical analysis of the Bikini ashes
Author: Ishibashi, M.; Shiomatsu, T.; Ishida, T.
Source: Bull. Inst. Chem. Res., Kyoto Univ. (Japan)
Date: 1954 35-39 p.
Coden: BICRA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8101
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: The following nuclides were detected in the Bikini ashes by radiochemical procedures: /sup 45/Ca, /sup 89/Sr, /sup 91/Y, /sup 95/Zr, /sup 103/Ru, /sup 144/Pr, and /sup 237/U. The ion-exchange method was used for analysis of contaminated rain water which fell on the Kyoto area on May 16, 1954 from which the presence of /sup 89/Sr, /sup 95/Zr, and /sup 140/Ba, was detected. Rare earths seemed also to be present.

Record - 51

DIALOG File 104: >
694235 AIX-11:558635, EDB-81:002483
Title: Dosimetric results for the Bikini population
Author: Greenhouse, N.A.; Miltenberger, R.P.; Lessard, E.T. (Safety and Environmental Protection Division, Upton, NY (USA))
Source: Health Phys. (United Kingdom) v 38:5.
Date: May 1980 846-851 p.
Coden: HLTPA
Document Type: Journal Article
Language: English
Journal Announcement: EIB8012

Subfile: AIX (non-US Atomindex input).
Work Location: United States
Abstract: The restoration of Bikini Atoll after contamination with fallout from weapons tests began in 1969. By the time of their departure in 1978 the number of Bikini residents had reached about 140. External radiation monitoring, bioassay and whole-body counting programmes for the Bikini Island population are described. The dose equivalents during the residency period and dose equivalent commitments to bone and marrow from ingested /sup 90/Sr - /sup 90/Y and to total-body from ingested /sup 137/Cs - /sup 137/sup(M)Ba are presented. A whole-body dose equivalent and commitment of 3 rem for a maximally exposed person and a population average dose equivalent and commitment of 1.2 rem were calculated for residential periods between 1969 and 1978.

Record - 52

<DIALOG File 104: >
673278 EDB-80:112805
Title: Radioactive contamination of plants in Japan covered with fallout from H-bomb detonations in March-May 1954 at Bikini Atoll, Marshall Islands. I. Distribution of deposited radioactivity
Author: Yatazawa, M.; Ishihara, T.
Source: Soil Plant Food (Japan) v 1.
Date: 1955 21-22 p.
Coden: SPFDA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8011
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: In May 1954 rains contained radioactivity up to 0.2 muc./liter. The provisional permissible level of unknown radioisotopes in H/sub 2/O is given as 10/sup -7/ muc./ml for ..beta..- or ..gamma..-emitters. The safety factor for these values is at least 100. From these values the permissible level for foods was calculated as 0.22 muc./day. Food plants tested ranged 0 to 1.25 muc./10g dry matter. It is concluded that serious radioactive contamination of plants was probable.

Record - 53

<DIALOG File 104: >
673277 EDB-80:112804
Title: Investigations on the contamination of field crops by artificial radioactivities as a result of the H-bomb tests at Bikini Atoll
Author: Egawa, T.; Iimura, K.; Shirai, T.; Yoshida, T.; Kawarazaki, H; Michiyoshi; Tsukahara, S.
Source: Soil Plant Food (Japan) v 1.
Date: 1955 19-20 p.
Coden: SPFDA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8011
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: Crop samples taken between June and October 1954 were analyzed

for radioactivity. Rare earth elements contributed the greater part of the activity. Polished rice showed no activity.

Record - 54

<DIALOG File 104: >
652400 EDB-80:091925
Title: Metabolism of the radioisotopes contained in the radioactive ashes obtained from the No. 5 Fukuryu Maru
Author: Kikuchi, T.; Wakisaka, G.; Kono, T.; Goto, H.; Akagi, H.; Yamamasu, T.; Sugawa, I.
Source: Bull. Inst. Chem. Res., Kyoto Univ. (Japan)
Date: 1954 84-90 p.
Coden: BICRA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8008
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: Among the radioisotopes 141, 144 Ce obtained by separation from ashes on the ship, i.e., /sup 91/Y, /sup 141,144/Ce, Pr/sup 144/, /sup 45/Ca, s p/ 89, 90/Sr, /sup 103, 106/RU, /sup 106/Rh, /sup 95/Zr, /sup 95/Nb, /sup 131/I, Sr, Ca, and Y were accumulated chiefly in the bones of adult mice, and the elimination of radio-Sr from there was very slow. When administered by mouth, radio-Sr and radio-Ca were readily absorbed from the digestive tract, while the absorption of radio-Y from the tract was poor.

Record - 55

<DIALOG File 104: >
652399 EDB-80:091924
Title: Metabolism of fission products. I. The metabolism of the radioactive ashes obtained from the No. 5 Fukuryu Maru
Author: Kikuchi, T.; Wakisaka, G.; Kono, T.; Hiroshi, G.; Akagi, H.; Yamamasu, T.; Sugawa, I.
Source: Bull. Inst. Chem. Res., Kyoto Univ. (Japan)
Date: 1954 75-83 p.
Coden: BICRA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8008
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: When the radioactive ashes were administered by mouth, the radioisotopes which were chiefly absorbed were alkaline earths, and were deposited mainly in the bones. When, after the removal of the alkaline earths, the radioisotopes contained in the radioactive ashes were administered by mouth in the form of chloride or citrate, the radioisotopes chiefly absorbed were heavy metals such as Ru and Rh.

Record - 56

<DIALOG File 104: >
652356 EDB-80:091881
Title: Radiochemical analysis of the body of the late Mr. Kuboyama

Author: Kimura, K.; Ikeda, N.; Kimura, K.; Kawanishi, H.; Kimura, M.
Source: Radioisotopes (Tokyo) (Japan) v 4.
Date: 1956 22-27 p.
Coden: RAISA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8008
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: Analyses were carried out of various organs of Mr. Kuboyama 200 days after he had exposed himself to radiation of the atomic bomb explosion on Bikini Atoll, March, 1954. By ion-exchange chromatography, the presence of the following nuclides was indicated: /sup 144/Ce, and /sup 144/Pr in the bone (I) (20 x 10/sup -12/ counts/g. fresh wt.). Liver (II), and Kidneys (III); /sup 95/Zr and /sup 95/Nb in II and III; /sup 106/Rh, /sup 129m/Te, and /sup 129/Te in I, III, and muscles; and /sup 89/Sr, /sup 90/Sr, and /sup 90/Y in I, II, and III. Activities found in these organs were decidedly higher than those found in the control samples obtained from individuals who died of other than the so-called radiation sickness. Radiation dose received by the bones of Mr. Kuboyama was calculated to be approximately 8 r.e.p.

Record - 57

<DIALOG File 104: >
655300 EDB-80:091325
Title: Estimate of radiation doses received by the individuals aboard a contaminated fishing boat
Author: Yamazaki, F.; Kakehi, K.
Source: Radioisotopes (Tokyo) (Japan) v 3:1.
Date: 1954 4-6 p.
Coden: RAISA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8008
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: A dose was estimated to be 120 r. in 24 hours or 270 r. in 13 days when calculated according to t/sup -1/ /sup 2/; or 240 r. in 24 hours or 440 r. in 13 days when calculated according to t/sup -1/ /sup 4/, observed value of decay, and supposing exposure to the radiation began 6 hours after the explosion had occurred on Bikini.

Record - 58

<DIALOG File 104: >
651824 EDB-80:091349
Title: Studies on the radioactivity in certain pelagic fish. III. Separation and confirmation of /sup 65/Zn in the muscle tissue of a skipjack
Author: Yamada, K.; Tozawa, H.; Amano, K.; Takase, A.
Source: Nippon Suisan Gakkaishi (Japan) v 20:10.
Date: 1955 921-926 p.
Coden: NSUGA
Document Type: Journal Article

5004659

Language: English
Journal Announcement: EDB8008
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: Ashed sample of the muscle tissue of skipjack, which were caught by Shunkotsu-Maru on June 19th near Bikini Atoll was used for the present study. Ion exchanger method, using Dowex 50, was applied to separate radioactive elements with 0.2 HCl, 0.5% oxalic acid and 5% ammonium citrate (pH 3.53, 4.18, 4.60, 5.02, 5.63 and 6.42) as the eluents. Elution curve of the ashed muscle is shown in Figure 1. Appreciable amounts of cationic radioactive elements were separated by 0.5% oxalic and by 5% ammonium citrate at the pH of 4.18 and also anionic radioactive elements were obtained by 0.2N HCl. As the fraction, which can be withdrawn by ammonium citrate as pH 4.18, was proved the most active; further analysis was undertaken according to the scheme cited in Figures 2 and 5. In addition to these chemical separation, absorption curve of this specimen with tin foil was examined simultaneously (Figure 3) and thus the radioactive /sup 65/Zn was confirmed to be present in the fish muscle. Although it was difficult to detect radioactivity in rare-earth and alkaline-earth groups in the muscle tissue, attempts are being made for more precise examination.

Record - 59

<DIALOG File 104: >
85:1923 EDB-80:091342
Title: Radioactive material in the radiologically contaminated fishes caught in the Pacific Ocean in 1954
Author: Saiki, M.; Ohmae, S.; Mori, T.
Source: Nippon Suisan Gakkaishi (Japan) v 20.
Date: 1955 902-906 p.
Coden: NSUGA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8008
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: The radioactivity of several samples of Coryphaena hippyrus caught in the southern Pacific in May, 1954, after the atomic explosion at Bikini, was found, in decreasing order, in spleen, kidney, liver, pyloric ceca, heart, gill, intestine, gastric wall, ovary, testis, gastric content, red muscle, skin, vertebrae, and muscle. The red muscle of Neothunnus Macropterus showed 54.8 counts/min./0.20 g. activity on dry basis, the activity was decreased to 27.6 by soaking 25 g. muscle in 25 cc. water, and to 14.1 by soaking in 0.5% Na ethylenediaminetetraacetate solution. The radioactive substances in these fish tissues were found, upon analysis, to belong to the III group, particularly to III-3 group. Examination of synchroscope patterns by scintillation counter indicated the presence of /sup 65/Zn among the radioactive substances. /sup 90/Sr was suggested to be present in very small amount.

Record - 60

<DIALOG File 104: >
85:1922 EDB-80:091347

Title: Radioactivity in the pelagic fish. III. Separation and identification of zinc-65 in the muscle of skipjack
Source: Nippon Suisan Gakkaishi (Japan) v 20.
Date: 1955 921-926 p.
Coden: NSUGA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8008
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: Muscles of Skipjack caught in the vicinity of the Bikini Atolls after the explosion were washed, treated with Dowex 50, and eluted with various solvents. A fraction obtained with 0.5% oxalic acid and ammonium citrate (pH 4.18) contained /sup 65/Zn.

Record - 61

<DIALOG File 104: >
65182) EDB-80:091345
Title: Radiologic contamination of fish. II. Actual state of radiologic contamination in fish and its possible routes on the basis of the findings of the Bikini Expedition
Author: Kawabata, T.
Source: Jpn. J. Med. Sci. Biol. (Japan) v 8.
Date: 1955 347-358 p.
Coden: JJMDA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8008
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: The contamination of large fish is chiefly from their food.

Record - 62

<DIALOG File 104: >
65181 EDB-80:091341
Title: Radiochemical analysis of radio-nuclides in sea water collected near Bikini Atoll
Author: Miyake, Y.; Sugiura, Y.
Source: Rep. Meteorol. Geophys. (Tokyo) (Japan) v 6.
Date: 1955 33-37 p.
Coden: RMGTA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8008
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: A radiochemical analysis of sea water containing fission materials collected near Bikini Atoll in June, 1954, was performed. The sea water was boiled with hydrochloric acid, iron and lanthanum salts each 5 mg as Fe and La were added to it. They were precipitated as hydroxide, which was dissolved in hydrochloric acid and ferric chloride was extracted with ethyl ether. The remaining solution was evaporated to dryness and the residue was dissolved in hydrochloric acid. Using the latter solution the

group separation was done with cation exchanger resins.

Record - 63

<DIALOG File 104: >
651737 EDB-80:091262
Title: Analysis of radioactive fallout of the atomic bomb explosion on Bikini
Author: Kimura, K.
Source: Radioisotopes (Tokyo) (Japan) v 3.
Date: 1954 1-4 p.
Coden: RAISA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8008
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: The radioactive fallout was found to contain 55.2, 7.0, 11.8, and 26.0% of CaO, MgO, CO/sub 2/, and H/sub 2/O, respectively, the chief constituent being Ca OH)/sub 2/. The electric-spark method of analysis showed the presence of Al, Fe, and Si in addition to Ca and Mg. Its decay curve followed I = ct/sup -1/ 'sup 37/, where I represents radioactivity, t, time since the explosion took place, March 1, 1954, and c, const. Its specific activity measured on April 23, 1954, was 0.37 mc./g. Radioactive nuclei identified by March 26 were /sup 89/Sr, /sup 90/Sr, /sup 91/Y, /sup 95/Sr, /sup 95m/Nb, /sup 95/Nb, /sup 103/Ru, /sup 106/Rh, /sup 129m/Te, /sup 129/Te, /sup 132/Te, /sup 131/I, /sup 132/I, /sup 140/Ba, /sup 141/Ce, /sup 144/Ce, /sup 143/Pr, /sup 144/Pr, /sup 147/Nd, /sup 147/Pm, /sup 85/S, /sup 45/Ca, /sup 237/U, and /sup 239/Pu.

Record - 64

<DIALOG File 104: >
651736 EDB-80:091261
Title: Colloid morphological and crystalline studies in Bikini dust from tne No. 5 Fukuryu Maru by electron microscopy and diffraction methods
Author: Suito, E.; Takiyama, K.; Ueda, N.
Source: Bull. Inst. Chem. Res., Kyoto Univ. (Japan)
Date: 1954 18-28 p.
Coden: BICRA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8008
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: Dust was collected from the deck, fishes, and other parts of the ship. The dust was white granules, approximately 0.3 mm. in size and sp. gr. 2.42. These granules were composed of unit particles which were cubic or spindle of 0.1 to 3. ..mu.. in size. The Bikini dust was calcite as determined by electron microdiffraction and x-ray diffraction studies. The coral reef is aragonite. It is suggested that coral reef was evapd. by the H-bomb explosion.

Record - 65

<DIALOG File 104: >
651734 EDB-80:091259
Title: Radioautographic studies of the radioactive ashes obtained from the No. 5 Fukuryu Maru
Author: Kikuchi, T.; Akagi, H.; Goto, H.; Wakisaka, G.
Source: Bull. Inst. Chem. Res., Kyoto Univ. (Japan)
Date: 1954 12-17 p.
Coden: BICRA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8008
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: Radioautographic studies have been made of the radioactive ashes obtained from the ship by use of x-ray film, radioautographic stripping plates, and plates of ..cap alpha..-emitters. The radioactivity was found not proportional to the size of the particle, and the distribution of radioactivity in each particle was not uniform.

Record - 66

<DIALOG File 104: >
651733 EDB-80:091258
Title: Radioautographic studies of the materials obtained from the No. 5 Fukuryu Maru contaminated by radioactive ashes
Author: Kikuchi, T.; Akagi, H.; Goto, H.; Wakisaka, G.
Source: Bull. Inst. Chem. Res., Kyoto Univ. (Japan)
Date: 1954 29-34 p.
Coden: BICRA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8008
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: The contamination was associated with the presence of small radioactive particles. Although these particles were easily scattered, it was difficult to remove them completely. The particles did not penetrate into the interior of clothes of fine meshes. Decontamination by washing with sea water was not perfect.

Record - 67

<DIALOG File 104: >
651732 EDB-80:091257
Title: Properties and size of the radioactive ashes obtained from the No. 5 Fukuryu Maru
Author: Kikuchi, T.; Wakisaka, G.; Akagi, H.; Goto, H.
Source: Bull. Inst. Chem. Res., Kyoto Univ. (Japan)
Date: 1954 4-11 p.
Coden: BICRA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8008
Subfile: TIC (Technical Information Center).
Work Location: Japan

Abstract: Size and radioactivity of the ashes collected from the ship have been measured. The ashes consisted of particles which appeared dark when observed through an occular microscope. When observed by side illumination the particles appeared white and several black spots were seen on the surfaces.

Record - 68

<DIALOG File 104: >
651729 EDB-80:091254
Title: Introduction to special collection of papers. Analysis of the Bikini ash
Author: Kimura, K.
Source: Jpn. Anal. (Japan) v 3.
Date: 1955 333-334 p.
Coden: BNSKA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8008
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: The incident of the Bikini ashes and the fishing boat is reported. Experiences on the boat are recorded, and fallout analyses are compared with those of Nagasaki and Hiroshima.

Record - 69

<DIALOG File 104: >
651616 EDB-80:090541
Title: Studies of the analytical chemistry on filter paper. XVI. Paper chromatography of radioactive substance. Radiochemical studies on ''Bikini ashes''
Author: Nakano, S.
Source: Bull. Chem. Soc. Jpn. (Japan) v 29.
Date: 1956 219-224 p.
Coden: BCSJA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8008
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: Radioactivity from ''Bikini ashes'' and /sup 235/U fission is divided into 3 major groups by ion-exchange methods and then subdivided by paper chromatography. In the first group, TeO/sub 4/--, SO/sub 4/--, PO/sub 4//sup 3/-, and I-, as well as two /sup 106/Ru spots, are resolved in filter paper by iso-AmOH. /sup 137/Cs and /sup 144/Ce from the second and /sup 90/Y and /sup 90/Sr from the third group are separated also. It is shown that the presence of carrier or foreign elements alters the chromatographic behavior of the tracers.

Record - 70

<DIALOG File 104: >
651615 EDB-80:090540
Title: Detection of rhodium-103m in the Bikini Ashes

Author: Kimura, K.; Ikeda, N.; Yoshihara, K.
Source: Bull. Chem. Soc. Jpn. (Japan) v 29.
Date: 1956 395-399 p.
Coden: BCSJA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8008
Subfile: TIC (Technical Information Center).
Work Location: Japan
Abstract: The radiochemical analysis of the so-called Bikini ashes which fell on a Japanese fishing boat, the No. 5 Fukuryu Maru on March 1, 1954, are described as of some 25 days after detoration of the bomb. The collected sample 10/sup 7/ counts/min.) was ignited and dissolved in 6N HCl, insolubles were filtered off, and the activity of small aliquots of the filtrate was measured. Total activity was estimated about 10/sup 6/ counts/min. Ru (10mg.) was added to the filtrate as a carrier, the acidity of solution was adjusted to 2N, H/sub 2/S was passed through to precipitate Ru as sulfide, and the precipitate was dissolved with HNO/sub 3/, H/sub 2/O, KMnO/sub 4/, and concentrated H/sub 2/O/sub 2/. The appropriate aliquot portion of the distillate was taken up in a counting dish and evaporated to dryness, the activity was measured and found to be 1.5 x 10/sup 5/ counts/min.

Record - 71

<DIALOG File 104: >
6397-3 AIX-11:510704, EDB-80:079288
Title: Plutonium concentrations in fish and seawater from Kwajalein Atoll
Author: Noshkin, V.E.; Wong, K.M.; Eagle, R.J. (California Univ., Livermore (USA). Lawrence Livermore Lab.)
Source: Health Phys. (United Kingdom) v 37:4.
Date: Oct 1979 549-556 p.
Coden: HLTPA
Document Type: Journal Article
Language: English
Journal Announcement: EDB8005
Subfile: AIX (non-US Atomindex input).
Work Location: United States
Abstract: A follow-up study has been made to assess the concentrations of /sup 239/ /sup 240/Pu and /sup 137/Cs in the marine environment of Kwajalein Atoll. Fish collected from the atoll in 1972 had body burdens of plutonium that were substantially higher than concentrations in similar species from locations contaminated only with global fallout. Recent results, however, indicated that Kwajalein lagoon seawater contained levels of plutonium more similar to global fallout levels found in north equatorial Pacific surface waters. No satisfactory explanation for the reported plutonium levels in fish from Kwajalein collected in 1972 could be deduced from the available data. The highest plutonium concentrations reported for the 1972 reef species of fish could expose man, through ingestion of marine foods, to a dose rate as high as 25% of the proposed EPA guideline for annual total transuranic dose rate to bone (3 mrad/yr over 70 yr). The present results show the dose rate from the marine food pathway is nearer to 0.005% of the recommended EPA value and is consistent with the view that Kwajalein Atoll contains plutonium concentrations that are expected from global fallout. The magnitude of the plutonium levels

reported in fish collected from Kwajalein lagoon during 1972 was excessively high, and these results appear to be inconsistent with other environmental data from the lagoon. These results also show that concentration factors for plutonium in fish muscle and bone tissues appear to be independent of species, trophic level and location, which leads to the belief that there is a great deal of validity in the concept of a concentration factor for estimating concentrations of plutonium in fish.

Record - 72

<DIALOG File 104: >
558474 AIX-10:432891, EDB-79:137940
Title: Determination of transuranium elements in a so-called 'Bikini ash' sample and in marine sediment samples collected near Bikini Atoll
Author: Hisamatsu, S. (Akita Univ. (Japan)); Sakanoue, M.
Source: Health Phys. (United Kingdom) v 35:2.
Date: Aug 1978 301-307 p.
Coden: HLTPA
Document Type: Journal Article
Language: English
Journal Announcement: EDB790 TSPA
Subfile: AIX (non-US Atomindex input).
Work Location: Japan
Abstract: The concentrations of /sup 239 +240/Pu and /sup 241/Am in the debris from the second thermonuclear test detonation of the USA (Bravo) were determined. This debris, called Bikini Ash, was collected in 1954 on the deck of the Japanese fisherboat '5th Fukuryu-Maru' which was located some 150 km to the east of Bikini Atoll at the time of the thermonuclear test. A portion of the 1954 sample was subjected to radiochemical analysis in 1974. The concentrations of /sup 239 +/ /sup 240/Pu and /sup 241/Am in th sample were determined to be 25.9 + - 1.7 and 12.9 + - 0.9 dis/min/mg, respectively. From these values, the ratio of /sup 241/Pu//sup 239 +240/Pu at time zero was calculated to be 86 + - 3, and this ratio was almost the same as in the Mike thermonuclear debris. The /sup 239 +240/Pu and /sup 241/Am contents of the marine sediment samples collected near Bikini Atoll were also analyzed, and a significant contamination with these nuclides was found to be still remaining in this area.

Record - 73

<DIALOG File 104: >
533578 EDB-79:113043
Title: Micronesia: America's strategic trust
Author: Johnson, G.
Source: Bull. At. Sci. (United States) v 35:2.
Date: Feb 1979 10-15 p.
Coden: BASIA
Document Type: Journal Article
Language: English
Journal Announcement: EDB7910
Subfile: TIC (Technical Information Center).
Work Location: United States
Abstract: Operation Crossroads by the US was designed to test the destructive power of nuclear weapons. The inhabitants on Bikini and Enewetak were moved to uninhabited atolls in the Marshall Islands, with the

promise from the US that they would be returned to their islands. During the next 12 years, about 70 atomic and hydrogen bomb blasts devastated the islands. On March 1, 1954, the US detonated Bravo, the first test of a deliverable hydrogen bomb, exposing the Japanese fishermen on the Lucky Dragon and the inhabitants of Rongelap and Utirik islands to radiation. The struggle of all these islanders being moved from their homelands, their return to contaminated environments in some cases, their medical problems, and trust funds instituted by the United States are discussed. (MCW)

Record - 74

<DIALOG File 104: >
521763 ERA-04:049177, EDB-79:101228
Title: Studies on the Tintinnida of Enewetak Atoll
Author: Gold, K.; Morales, E.A.
Affiliation: New York Aquarium, Brooklyn
Source: J. Protozool. (United States) v 24:4.
Date: 1977 580-587 p.
Coden: JPROA
Document Type: Journal Article
Language: English
Journal Announcement: ED3705
Subfile: ERA (Energy Research Abstracts); TIC (Technical Information Center).
Work Location: United States
Abstract: Twenty-six species of Tintinnida were identified in the plankton at Enewetak Atoll. The majority of species in this habitat had hyaline loricae. The agglutinated forms had a high degree of specificity for the types of calcium-containing particles that they incorporated into the loricae. Scanning electron micrographs of loricae are presented for 10 species.

Record - 75

<DIALOG File 104: >
398737 AIX-09:386169, EDB-78:098917
Title: Analysis of alpha emitters in the coral, Favites virens, from Bikini lagoon by solid-state track detection
Author: Levy, Y.; Miller, D.S.; Friedman, G.M. (Rensselaer Polytechnic Inst., Troy, N.Y. (USA). Dept. of Geology); Noshkin, V.E.
Source: Health Phys. (United Kingdom) v 34:3.
Date: Mar 1978 209-217 p.
Coden: HLTPA
Document Type: Journal Article
Language: English
Journal Announcement: ED7807
Subfile: AIX (non-US Atomindex input).
Work Location: United States
Abstract: A quantitative method for the non-destructive analysis of alpha emitters in CaCO/sub 3/ matrices by solid-state track detection in cellulose nitrate was developed. 0.4pCi/g in an area of 4 mm/sup 2/ can be measured routinely; smaller concentrations can be determined but with a lower resolution. Calibration methods used were a Pu source of 0.15 different thickness, 2-30 ..mu..m, and a powdered coral sample from Enewetak Atoll which had been radiochemically analyzed for plutonium

radionuclides, /sup 241/Am and other long-lived fission and activation products. Slabs of a coral, Favites virens, from Bikini lagoon were analyzed. A quantity of the alpha emitters detected in regions of the coral identified with growth during the years of nuclear testing, 1954, 1956 and 1959, are found in small discrete spots. Thin sections cut parallel to the direction of coral growth give different patterns of distribution. No such hot spots are evident in any post-test year growth sections although plutonium and other long lived fission and activation products were measured in these sections by radiochemical techniques.

Record - 76

<DIALOG File 104: >
195122 AIX-07:278512, EDB-77:032747
Title: Plutonium levels in Kwajalein Lagoon
Author: Noshkin, V.E; Eagle, R.J.; Wong, K.M. (California Univ., Livermore (USA). Lawrence Livermore Lab.)
Source: Nature (London) (United Kingdom) v 262:5571.
Date: 26 Aug 1976 745-748 p.
Coden: NATUA
Document Type: Journal Article
Language: English
Journal Announcement: EDB7702
Subfile: AIX (non-US Atomindex input).
Work Location: United States
Abstract: Reported plutonium levels in fish from both Kwajalein and Enewetak lagoons suggest that Kwajalein Lagoon contains significantly more plutonium in its environment than would be expected from worldwide fallout levels alone, although quantities of plutonium greater than fallout concentrations have not been cetected in the lagoon water. If there is no reason to reject the published fish data, then individuals on Kwajalein Atoll who supplement their diet with foods from the local marine environment may have plutonium body burdens similar to the low levels predicted for individuals on similar diets at Enewetak Atoll.

Record - 77

<DIALOG File 104: >
112722 ERA-01:017361, INS-76:014991, EDB-76:049792
Title: Transuranics and other radionuclides in Bikini Lagoon: concentration data retrieved from aged coral sections
Author: Noshkin, V.E.; Wong, K.M.; Eagle, R.J.; Gatrousis, C.
Affiliation: Univ. of California, Livermore
Source: Limnol. Oceanogr. (United States) v 20:5.
Date: Sep 1975 729-742 p.
Coden: LIOCA
Document Type: Journal Article
Language: English
Journal Announcement: EDB7607
Subfile: INS (US Atomindex input); ERA (Energy Research Abstracts); TIC (Technical Information Center).
Work Location: United States
Abstract: X radiography and autoradiography of thin vertical sections were used to estimate the growth rate of a specimen of Favites virens from Bikini Lagoon. Discrete bands of radioactivity were identifiable with

specific nuclear test series. The coral growth rate of 8.0 mm year/sup -1/ determined by autoradiography is in good agreement with the rate of 8.1 +- 2.2 mm year/sup -1/ derived from the ''seasonal'' alternating light and dark bands on x radiographs. With these bands as growth rate indicators, the coral was sectioned into yearly increments and analyzed by low-level, nondestructive gamma spectrometry, radiochemical techniques, and mass spectrometry to reconstruct the variations in the concentration of transuranics and other radionuclides in the marine environment at Bikini since 1954. From the concentration data retained in this indicator species, the exchange rate of radionuclides between the lagoon and the open ocean is computed to be longer than exchange rates based on physical circulation data. There is no constant ratio of plutonium isotopes in the coral growth sections, suggesting that the redistributions of the several plutonium isotopes in the environment may be governed by different biogeochemical processes. Increased levels of /sup 210/Po (/sup 210/Pb) were found in test-year growth sections, contradicting previous arguments that no /sup 210/Pb has resulted from weapons testing. (auth)

Record - 78

<DIALOG File 104: >
044397
Title: Enewetak (Eniwetok) Atoll: aspects of the nitrogen cycle on a coral reef
Author: Webb, K.L. (Virginia Inst. of Marine Science, Gloucester Point; DuPaul, W.D.; Wiebe, W.; Sottile, W.; Johannes, R.E.
Source: Limnol. Oceanogr. (United States) v 20:2.
Date: Mar 1975 198-210 p.
Coden: LIOCA
Document Type: Journal Article
Language: English
Journal Announcement: ERA7612
Subfile: ERA (Energy Research Abstracts); TIC (Technical Information Center).
Work Location: United States
Abstract: None .

Record - 79

<DIALOG File 109: >
1085854 NSA-32-017199
$sup 210$Po and $sup 239$Pu, $sup 240$Pu in biological and water samples from the Bikini and Eniwetok atolls
Nevissi, A.; Schell, W.R.
Univ. of Washington, Seattle
Nature (London), v. 255, no. 5506, pp. 321-323
Publication Date: 22 May 1975
Coden: NATUA
Country of Publication: United Kingdom
Journal Announcement: NSA32
Document Type: Journal Article
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Work Location: United States

Record - 80

<DIALOG File 109: >
1080377 NSA-32-011545
Distribution of plutonium and americium in Bikini Atoll
Nevissi, A.; Schell, W.R.
Univ. of Washington, Seattle
Health Phys., v. 29, no. 5, pp. 539-547
Publication Date: May 1975
Coden: HLTPA
Country of Publication: United Kingdom
Journal Announcement: NSA32
Document Type: Journal Article
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Work Location: United States

Record - 81

<DIALOG File 109: >
884470 NSA-18-017491
RADIATION AND CAUSE OF SICKNESS
Meyer, L.M.
South Nassau Communities Hospital, Oceanside, N.Y.
American Journal of Public Health. Supplement (U.S.) v 54.
Publication Date: Jan. 1964 51-6 p.
Coden: AJHSA
Journal Announcement: NSA18
Document Type: Journal Article
Language: English
The health status of a group of people exposed to accidental fallout in March, 1954, following the detonation of an experimental nuclear device at the Bikini testing site in the Marshall Islands, is reported. In addition to the 23 Japanese fishermen, the largest fallout exposure was sustained by 64 inhabitants on the Island of Rongelap, 105 miles from the detonation site. This gave an estimated dose of 175 r of whole-body gamma radiation, contamination of skin sufficient to result in BETA -ray burns, and slight internal absorption of radioactive materials through inhalation and ingestion. Medical examinatio- n of these subjects nine yr after exposure showed slight reductions of all blood cell counts below control levels, but well within the normal range; retardation of growth of male children, especially those exposed at ages 12 to 18 months; complete healing of skin burns, with occasional areas of depigmentation and isolated instances of benign pigmented nevi: complete regrowth of hair in persons suffering epilation; and no instances of leukemia, malignancy, suggestion of increase in the aging process, or decrease in the fertility rate. Whole-body counts of exposed and control subjects were made in 1958 and 1961. Body burdens of various fission products are presented. (BBB)

Record - 82

<DIALOG File 109: >
723130 NSA-26-020355
$sup 55$Fe IN RONGELAP PEOPLE, FISH, AND SOILS.
Beasley, T.M. ; Held, E.E.; Conard, R.M.

Univ. of Washington, Seattle
Health Phys. 22: No. 3, 245-50(Mar 1972).
Publication Date: 1972
Journal Announcement: NSA26
Document Type: Journal Article
Language: English
Subfile: NSA (Nuclear Science Abstracts)

Record - 83

<DIALOG File 109: >
694877 NSA-25-042377
/sup 108m/Ag IN BIOTA SEDIMENTS AT BIKINI AND ENIWETOK ATOLLS.
Beasley, T.M.; Held, E.E.
Univ. of Washington, Seattle
Nature (London) 230: 450-1 (16 Apr 1971).
Publication Date: 1971
Journal Announcement: NSA25
Document Type: Journal Article
Language: English
Subfile: NSA (Nuclear Science Abstracts)

Record - 84

<DIALOG File 109: >
634092 NSA-24-034564
CYTOGENETIC STUDIES ON FISHERMEN EXPOSED TO FALLOUT RADIATION IN 1954.
Ienihara, T.; Kumatori, T.
National Inst. of Radiological Sciences, Chiba, Japan
Idengaku Zasshi, Suppl. 44: No. 1, 242-51(Jul 1969).
Publication Date: 1969
Note: From 12th International Congress of Genetics, Tokyo, Japan. See CONF-680844.
Journal Announcement: NSA24
Document Type: Journal Article
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Work Location: Japan

Record - 85

<DIALOG File 109: >
572351 NSA-23-045417
EXTERNAL RADIATION ON BIKINI ATOLL.
Bennett, B.G.; Beck, H.L.
Atomic Energy Commission, New York
Nature (London), 223: 925-8(Aug. 30, 1969).
Publication Date: 1969
Journal Announcement: NSA23
Document Type: Journal Article
Language: English
Subfile: NSA (Nuclear Science Abstracts)

Record - 86

<DIALOG File 109: >
520095 NSA-21-020143
I. GENETIC STUDIES OF IRRADIATED NATURAL POPULATIONS OF DROSOPHILA. V. SUMMARY AND DISCUSSION OF TESTS OF POPULATIONS COLLECTED IN THE PACIFIC PROVING GROUND FROM 1955 THROUGH 1959.
Stone, W.S.; Wheeler, M.R.; Wilson, F.D.
Univ. of Texas, Austin
Tex., Univ., Publ., No. 6205: 54p(1962).
Publication Date: 1962
Journal Announcement: NSA21
Document Type: Journal Article
Language: English
Subfile: NSA (Nuclear Science Abstracts)

Record - 87

<DIALOG File 109: >
475093 NSA-22-028574
CHROMOSOME STUDIES ON JAPANESE EXPOSED TO RADIATION RESULTING FROM NUCLEAR BOMB EXPLOSIONS.
Ishihara, T.; Kumatori, T.
National Inst. of Radiological Sciences, Chiba, Japan
pp 144-66 of Human Radiation Cytogenetics. Evans, H. J. Court Brown, W. M. McLean, A. S. (eds.). New York, John Wiley and Sons, Inc., 1967.
Note: From International Symposium on Human Radiation Cytogenetics, Edinburgh. See CONF-661062.
Journal Announcement: NSA22
Document Type: Journal Article
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Work Location: Japan

Record - 88

<DIALOG File 109: >
461584 NSA-22-015049
ABNORMAL FORMATION OF VISUAL ORGANS OF AMPHIBIAN LARVAE INDUCED BY RADIOACTIVE RAINWATER.
Nishimura, K.
Mie Prefectural Univ., Tsu, Japan
Mie Med. J., 16: 263-7(Jan. 1967).
Publication Date: 1967
Journal Announcement: NSA22
Document Type: Journal Article
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Work Location: Japan

Record - 89

<DIALOG File 109: >
456960 NSA-22-010413
P TIMES TO AUSTRALIAN STATIONS FROM NUCLEAR EXPLOSIONS.
Cleary, J.
Australian National Univ., Canberra

Bull. Seismol. Soc. Amer., 57: 773-81(Aug. 1967).
Publication Date: 1967
Journal Announcement: NSA22
Document Type: Journal Article
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Work Location: AU

Record - 90

<DIALOG File 109: >
454782 NSA-22-008235
TRAVEL TIMES FROM CENTRAL PACIFIC NUCLEAR EXPLOSIONS.
Sogna, M.L.
Cambridge Univ., Eng.
Geophys. J., 13: 503-27(Nov. 1967).
Publication Date: 1967
Journal Announcement: NSA22
Document Type: Journal Article
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Work Location: United Kingdom

Record - 91

<DIALOG File 109: >
358157 NSA-20-012579
PRELIMINARY STUDIES OF THE PERSISTENCE OF TRITIUM AND $sup 14$C IN THE PACIFIC PROVING GROUND
Korenda, J.J.
Univ. of California, Livermore
Health Physics (England) v 11.
Publication Date: Dec. 1965 1445-57 p.
Coden: HLTPA
Secondary Report No.: UCRL-12302-T
Note: UCRL-12302-T
Note: 0017-9078
Journal Announcement: NSA20
Document Type: Journal Article
Language: English

Record - 92

<DIALOG File 109: >
176377 NSA-16-000410
PACIFIC CRATERS AND SCALING LAWS
Vaile, R.B. Jr.
Stanford Research Inst., Menlo Park, Calif.
J. Geophys. Research v 66.
Publication Date: Oct. 1961 3413-38 p.
Journal Announcement: NSA16
Document Type: Journal Article
Language: English
Crater measurements from two near-surface nuclear explosions detonated at Bikini atoll in 1954 are tabulated. On the basis of the crater data from

nuclear detonations, an extrapolation procedure was developed by which crater diameters can be predicted. This procedure is based on an empirical determination of the scaling exponent, m, as a function of soil type, using R = CW/sup 1/m, where R is radius, C is a constant related to the soil type, and W is the energy release. The range of uncertainty in the prediction of crater radius by this method is believed to be larger than a factor of 2. (auth)

Record - 93

<DIALOG File 109: >
164945 NSA-15-022024
DISTURBANCES OF SPERMATOGENESIS DUE TO RADIATION BY ATOMIC BOMB EXPLOSION AND FALL-OUT IN HIROSHIMA AND BIKINI
Murakami, N.
Tokyo Univ.
Geka no Ryoiki v 7.
Publication Date: 1959 1070-83 p.
Journal Announcement: NSA15
Document Type: Journal Article
Language: English
Fifteen persons exposed to the atomic bomb in Hiroshima and 18 exposed to fall-out contamination in the Bikini area were examined for spermatogenesis. Three of the 15 Hiroshima cases showed aspermia and were believed not to have recovered, but all of the 18 Bikini cases showed complete recovery of spermatogenesis. Most of the Bikini cases recovered in 9 to 30 months, but those which received 500 to 600 r of radiation took 30 months to recover. The physicochemical character of the sperm showed no great change in any of the cases. The function of the prostate was normal. (Abstr. Jpan Med., 1: No. 8, 1960)

Record - 94

<DIALOG File 109: >
116506 NSA-14-000628
THE ARTIFICIAL RADIOACTIVITY IN RAIN WATER OBSERVED IN JAPAN FROM MAY TO AUGUST 1954
Miyake, Y.
Meteorological Research Inst., Tokyo
Papers Meteorol. and Geophys. (Tokyo) v 5.
Publication Date: (1954) Sept. 173-7 p.
Journal Announcement: NSA14
Document Type: Journal Article
Language: English
Data are summarized on levels of radioactivity in samples of air-borne dust and rain water collected in Japan following the thermonuclear weapons tests at Bikini atoll from March to May 1954. (C.H.)

Record - 95

<DIALOG File 109: >
109253 NSA-13-015907
EFFECTS OF FALLOUT RADIATION ON A HUMAN POPULATION
Conard, R.A.; Robertson, J.S.; Wolins, W.; Meyer, L.M.; Sutow, W.W.; Hechter, H.

Brookhaven National Lab., Upton, N.Y.; South Nassau Communities Hospital, New York; M.D. Anderson Hospital, Houston, Tex.; Naval Radiological Defense Lab., San Francisco
Raciation Research v Suppl. No. 1.
Publication Date: 1959 260-95 p.
Journal Announcement: NSA13
Document Type: Journal Article
Language: Erglish
The status of 82 Marshallese people from Rongelap Atoll is reviewed four years after their accidental exposure to significant amounts of fall-out radiation. The accident occurred after the detonation of a large thermonuclear device during experiments at Bikini Atoll in the Pacific Proving Grounds in March 1954. A description of the clinical status is preceded by a brief summary of the pest findings. At four years postexposure, the only remaining evidences of the initial radiation exposure are the lag in complete recovery of certain peripheral blood elements to the levels of a compsrison population, the remaining residua of the heta-ray lesions of the skin, and evidence of low levels of radioisotopes absorbed internally. Late effects of radiation exposure were not seen. 80 references. (C.H.)

Record - 96

?DIALOG File 109: >
106534 NSA-13-013185
PLANTS AND FALL-OUT
Fosberg, F.R.
National Research Council, Washington, D.C.
Nature v 183.
Publication Date: (1959) May 23 1448 p.
Journal Announcement: NSA13
Document Type: Journal Article
Language: English
Observations are presented on the condition of vegetation in the area of the Marshall Islands affected by fall-out from the 1954 Bikini hydrogen bomb test. Abnormal or pathological conditions were observed in a number of plant species, increasing from islet to islet in the same order as the increase in fall-out intensity. Defoliation and die-back of twigs were conspicuous in two species on Eniwetok Islet. (C.H.)

Record - 97

?DIALOG File 109: >
060877 NSA-10-011571
DETECTION OF $sup 103$m Rh IN THE "BIKINI ASHES"
Kimura, K.; Ikeda, N.; Yoshihara, K.
Bull. Chem. soc. Japan v 29.
Publication Date: (1956) Apr. 395-8 p.
Journal Announcement: NSA10
Document Type: Journal Article
Language: English

Record - 98

?DIALOG File 109: >

C58481 NSA-10-009174
  PAPER CHROMATROGRAPHY OF RADIOACTIVE SUBSTANCES. (RADIOCHEMICAL STUDIES ON 'BIKINI ASHES" (MARCH 1, 1954), PART III). (STUDIES OF THE ANALYTICAL CHEMISTRY OF FILTER PAPER XVI)
  Nakano, S.
  Bull. Chem. Soc. Japan v 29.
  Publication Date: (1956) Mar. 219-24 p.
  Journal Announcement: NSA10
  Document Type: Journal Article
  Language: English

Record - 99

<DIALOG File 109: >
C15412 NSA-05-002069
  OCULAR CHANGES PRODUCED BY TOTAL BODY IRRADIATION
  Wilder, H.C.; Maynard, R.M.
  Am. J. Path. v 27.
  Publication Date: (1951) Jan.-Feb. 1-19 p.
  Journal Announcement: NSA05
  Document Type: Journal Article
  Language: English

Record - 100

<DIALOG File 109: >
012163 NSA-04-005569
  Cytological and Phenotypical Effects Induced in Maize by X-Rays and the Bikini Test Able Atomic Bomb
  Randolph, L.F.
  J. Cellular Comp. Physiol. v 34, Suppl. 1.
  Publication Date: (1950) June 103-17 p.
  Journal Announcement: NSA04
  Document Type: Journal Article
  Language: English

Record - 101

<DIALOG File 109: >
012164 NSA-04-005562
  Cotton from Bikini. Chromosome Irregularities Found in Plants Grown from Seed Exposed to Gamma Radiation
  Brown, M.S.
  J. Heredity v 41.
  Publication Date: (1950) May 115-21 p.
  Secondary Report No.: See also NSA 1-604
  Note: See also NSA 1-604
  Journal Announcement: NSA04
  Document Type: Journal Article
  Language: English

Record - 102

<DIALOG File 109: >
011716 NSA-04-005120

Radiobiological Research
Jaklitsch, J.J. Jr.
Mechanical Engineering (U.S.) v 72.
Publication Date: (1950) Jan. 17-8 p.
Coden: MEENA
Note: 0025-6501
Journal Announcement: NSA04
Document Type: Journal Article
Language: English

Record - 103

<DIALOG File 109: >
010742 NSA-04-004145
Lessons from Operation Crossroads
Erickson, C.A.
Chicago Med. School Quart. v 11.
Publication Date: (1950) Apr. 91-5 p.
Journal Announcement: NSA04
Document Type: Journal Article
Language: English

Record - 104

<DIALOG File 109: >
010442 NSA-04-003845
Chromosomal Rearrangements from Exposure to Radiation
Langley, A.E.
Maize Genetics Coop. News Letter (Cornell) v 24.
Publication Date: (1950) Mar. 17 7-8 p.
Journal Announcement: NSA04
Document Type: Journal Article
Language: English

Record - 105

<DIALOG File 109: >
009281 NSA-04-002684
Interpretation of Bikini Magnetic Data
Alldredge, L.R.; Dichtel, W.J.
Transactions of the American Geophysical Union (U.S.) Superseded by EOS, Trans., Am. Geophys. Union v 30.
Publication Date: (1949) Dec. 831-5 p.
Coden: TAGUA
Note: 0002-8606
Journal Announcement: NSA04
Document Type: Journal Article
Language: English

Record - 106

<DIALOG File 109: >
009111 NSA-04-002514
Incidental Finding of Megaloblastic-Like Cells in Bone Marrow of One of Two Swine with Macrocytic Anemia and Achlorhydria

Lawrason, F.D.; Cronkite, E.P.
Yale Journal of Biology and Medicine (U.S.) v 22.
Publication Date: (1949) Oct. 57-66 p.
Coden: YJBMA
Note: 0044-0086
Journal Announcement: NSA04
Document Type: Journal Article
Language: English

Record - 107

<DIALOG File 109: >
007937 NSA-04-001340
The Hemorrhagic Syndrome of Acute Ionizing Radiation Illness Produced in Goats and Swine by Exposure to the Atomic Bomb at Bikini, 1946
Cronkite, E.P.
Blood (U.S.) v 5.
Publication Date: (1950) Jan. 32-45 p.
Coden: BLOOA
Note: 0006-4971
Journal Announcement: NSA04
Document Type: Journal Article
Language: English

Record - 108

<DIALOG File 109: >
005983 NSA-04-000386
Hereditary Effects Produced in Maize by Radiations from the Bikini Atomic Bomb. I. Studies on Seedlings and Pollen of the Exposed Generation
Anderson, E.G.; Longley, A.E.; Li, C.H.; Retherford, K.L.
Genetics (U.S.) v 34.
Publication Date: (1949) Nov. 639-46 p.
Coden: GENTA
Secondary Report No.: See also NSA 1-1246
Note: See also NSA 1-1246
Note: 0016-6731
Journal Announcement: NSA04
Document Type: Journal Article
Language: English

Record - 109

<DIALOG File 109: >
003647 NSA-02-001655
The Clinical Manifestations of Acute Radiation Illness in Goats
Cronkite, E.P.
U.S. Naval Med. Bull. v 49.
Publication Date: (1949) Mar.-Apr. 199-215 p.
Journal Announcement: NSA02
Document Type: Journal Article
Language: English

Record - 110

<DIALOG File 109: >
003495 NSA-02-001503
Radiological and Salinity Relationships in the Water at Bikini Atoll
Ford, W.L.
Trans. Amer. Geophysical Union v 30.
Publication Date: (1949) Feb. 46-53 p.
Journal Announcement: NSA02
Document Type: Journal Article
Language: English

Record - 111

<DIALOG File 109: >
001246 NSA-01-001246
On the Frequency and Transmitted Chromosome Alterations and Gene Mutations Induced by Atomic Bomb Radiations in Maize
Anderson, E.G.
Proceedings of the National Academy of Sciences v 34.
Publication Date: August 1948 387-390 p.
Journal Announcement: NSA01
Document Type: Journal Article
Language: English

Record - 112

<DIALOG File 109: >
000604 NSA-01-000604
Chromosome Irregularities Produced by Atomic Irradiation
Brown, M.S.
Genetics (U.S.) v 33.
Publication Date: January 1948 98 p.
Coden: GENTA
Note: 0016-6731
Journal Announcement: NSA01
Document Type: Journal Article
Language: English

Record - 113

<DIALOG File 109: >
000406 NSA-01-000406
Cytogenetic Effects in Corn Exposed to Atomic Bomb Ionizing Radiation at Bikini
Randolph, L.F.; Longley, A.E.; Li, C.H.
Science See Saiensu v 108.
Publication Date: July 2, 1948 13-15 p.
Coden: SIENDS1
Journal Announcement: NSA01
Document Type: Journal Article
Language: English

Record - 114

<DIALOG File 6: (COPR. 1990 NTIS)>
1429702 AD-A214 150/5/XAB

Kiernan Reentry Measurements System on Kwajalein Atoll
(Journal article)
Roth, K. R. ; Austin, M. E. ; Frediani, D. J. ; Knittel, G. H. ; Mrstik, A. V.
Massachusetts Inst. of Tech., Lexington. Lincoln Lab.
Corp. Source Codes: 009875001; 207630
Sponsor: Electronic Systems Div., Hanscom AFB, MA.
Report No.: JA-6340; ESD-TR-89-245
1989 30p
Languages: English Document Type: Journal article
Journal Announcement: GRAI9005
Pub. in Lincoln Laboratory Jnl., v2 n2 p247-276 1989. Original contains color plates: All DTIC/NTIS reproductions will be in black and white.
NTIS Prices: PC A03/MF A01
Country of Publication: United States
Contract No.: F19628-85-C-0002
The Kiernan Reentry Measurements System (KREMS), located on Kwajalein Atoll in the Pacific, is the United States' most sophisticated and important research and development radar site. Consisting of four one-of-a-kind instrumentation radars, KREMS has played a major role for the past 25 years in the collection of data associated with ICBM testing. Furthermore, it has served as an important space-surveillance facility that provides an early U.S. view of many Soviet and Chinese satellite launches. Finally, the system is slated to play a key role in Strategic Defense Initiative experiments. Reprints. (EDC)

Record - 115

<DIALOG File 6: (COFR. 1990 NTIS)>
1107832 AD-A995 202/9/XAB
Operation CASTLE. Joint Task Force Seven, Commander Task Group 7.3. Extracted Version
(Final rept. Jan-May 54)
Bruton, H. C.
Kaman Tempo, Santa Barbara, CA.
Corp. Source Codes: 073617000; 412355
15 Dec 82 375p
Languages: English Document Type: Journal article
Journal Announcement: GRAI8508
Extracted version of report dated 1954.
Distribution limitation now removed.
NTIS Prices: PC A16/MF A01
Country of Publication: United States
Contract No.: DNA001-79-C-0455
No abstract available.

Record - 116

<DIALOG File 6: (COFR. 1990 NTIS)>
445614 AD-A008 612/4
Water Content and Reflectivity Measurement by 'Chirp' Radar
Metcalf, James I. ; Barnes, Arnold A. ; Nelson, Loren D.
Air Force Cambridge Research Labs Hanscom AFB Mass
Corp. Source Codes: 011800
Report No.: AFCRL-TR-75-0192

1975 5p
Document Type: Journal article
Journal Announcement: GRAI7513
Pub. in Radar Meteorology Conference (16th), 22-24 Apr 75, Houston, Tex., p492-495.
NTIS Prices: PC A02/MF A01
Contract No.: AF-133B
A frequency-modulated 'chirp' pulse radar, designed primarily for reentry vehicle tracking, was used to make weather observations at Kwajalein Missile Range. The radar was used in conjunction with an aircraft equipped with optical spectrometers for measuring particle sizes to generate correlations of radar reflectivity factor Z and water content M. A related experiment was conducted with a radar capable of transmitting either modulated or constant-frequency pulses to determine the equivalent pulse length necessary to derive calibrated Z values from the chirp radar data. This result permits direct comparison of the reflectivity values measured by chirp radar and those computed from the particle size spectrum data recorded on the aircraft. The chirp radar signal processing technique requires fewer independent data samples for measurement of weather echoes than are necessary with constant-frequency pulse radars. Techniques of averaging the data are presented and evaluated. (Author)

Record - 117

(DIALOG File 6: (COPR. 1990 NTIS)
209058 COM-71-00201
The Skipjack Tuna Fishery in Palau
Uchida, Richard N.
Bureau of Commercial Fisheries, Honolulu, Hawaii. Biological Lab.
Report No.: NOAA-7101290
1970 15p
Document Type: Journal article
Journal Announcement: GRAI7107
Pub. in The Kuroshio: A Symposium on the Japan Current, Honolulu, 1970 p569-582.
NTIS Prices: Reprint
The history of skipjack tuna (Katsuwonus pelamis) fishing in Palau goes back to the decade before the outbreak of World War II. The Japanese stopped fishing these waters at the outbreak of war. The present fishery for skipjack tuna is conducted by live-bait boats. Historical data on catch and fishing effort and more recent data on skipjack tuna sizes and sexual maturity permit description of the fishery. In 1936, the Japanese had between 9 and 32 vessels in the skipjack tuna fishery at Palau each month. Monthly catches ranged from 8.7 metric tons in February to 770.4 metric tons in December. The number of fishing trips ranged from 26 in February to as many as 612 in June. Catch per trip varied from 0.3 metric ton in February to 1.4 metric tons in November. The average size of the skipjack tuna varied from month to month between 36 and 52 cm. in 1936; in 1965-67, they ranged between 48 and 62 cm. For all years in which size data were examined, the average size tended strongly to increase in October-January. This increase in average size accounts roughly for the increase in catch per trip in winter. (Author)

Record - 118

<DIALOG File 6: (COPR. 1990 NTIS)>
209052 COM-71-00192
Tagging of Skipjack Tuna, Katsuwonus Pelamis, in Palau
Otsu, Tamio
Bureau of Commercial Fisheries, Honolulu, Hawaii. Biological Lab.
Report No.: NOAA-71012908
1970 5p
Document Type: Journal article
Journal Announcement: GRAI7107
Pub. in The Kuroshio: A Symposium on the Japan Current, Honolulu, 1970 p 565-568.
NTIS Prices: Reprint
The Bureau of Commercial Fisheries Biological Laboratory, Honolulu, Hawaii, initiated a skipjack tuna tagging program in the Palau Islands, Western Carolines, in June 1967 in cooperation with the Government of the Trust Territory of the Pacific Islands. As of mid-March 1968 five tagged fish have been recovered. (Author)

Record - 119

<DIALOG File 6: (COPR. 1990 NTIS)>
187588 AD-710 679
Late Quaternary Sea-Level Studies in Micronesia: Carmarsel Expedition
Curray, Joseph R. ; Shepard, Francis P. ; Veeh, H. Herbert
Scripps Institution of Oceanography La Jolla Calif
Corp. Source Codes: 315100
15 Jan 70 17p
Document Type: Journal article
Journal Announcement: USGRDR7020
Revision of report dated 21 Aug 68. Prepared in cooperation with Australian National Univ., Canberra (Australia). Dept. of Geophysics and Geochemistry.
Pub. in Geological Society of America Bulletin, v81 p1365-1380 Jul 70.
NTIS Prices: Not available NTIS
Contract No.: N00014-69-A-0200-6006
The authors were unable to find any coral or Tridacna in growth position, criteria that they believe are necessary for postulating higher than present relative sea level. Dates on the rubble suggest formation of many of these ridges about 2500 to 3000 B.P. (Author)

Record - 120

<DIALOG File 6: (COPR. 1990 NTIS)>
190311 AD-707 812
Optical Measurements and Information on the Press Kc-135 Aircraft (Meeting speech)
Curtis, Harold D.
Massachusetts Inst of Tech Lexington Lincoln Lab
Corp. Source Codes: 207650
Report No.: MS-2352; ESD-TR-70-159
1969 8p
Document Type: Journal article
Journal Announcement: USGRDR7016
Pub. in Proceedings of the Annual SPIE Technical Symposium (13th), p17-23, 19 Aug 68.

NTIS Prices: Not available NTIS
Contract No.: AF 19(628)-5167; ARPA Order-600
A KC-135 aircraft was instrumented for the measurement of radiation emitted by the members of a missile family as they reenter the atmosphere. The instruments, the mounts, and the automatic control system are described in terms of the design goals and of the achieved performance. A short description of the calibration equipment and methodology is presented. The limitations and uncertainties of radiation measurement and resolution photography have been estimated and are discussed briefly. (Author)

Record - 121

<DIALOG File 6: (COPR. 1990 NTIS)>
180310 AD-707 811
A 48 Inch Telescope/Spectrograph for Reentry Meesurements
(Meeting speech)
Billups, Robert R.
Massachusetts Inst of Tech Lexington Lincoln Lab
Corp. Source Codes: 207650
Report No.: MS-2351; ESD-TR-70-155
1968 1p
Document Type: Journal article
Journal Announcement: USGRDR7016
Pub. in Proceedings of the Annual SPIE Technical Symposium (13th), p25-34, 19 Aug 68.
NTIS Prices: Not available NTIS
Contract No.: AF 19(628)-5167
This paper describes the characteristics of a 48 inch telescope/spectrograph located on Kwajalein, M. I., its operation in the field, its mode of tracking and method of radio-metric calibration. Data showing the high spatial and spectral resolution obtainable will be presented. (Author)

Record - 122

<DIALOG File 6: (COPR. 1990 NTIS)>
162024 AD-699 262
Tropical Air Density Below 80 Km from Hypersonic Sphere Measurements
(Journal article)
Salah, Joseph E.
Massachusetts Inst of Tech Lexington Lincoln Lab
Corp. Source Codes: 207650
Report No.: JA-3367; ESD-TR-69-339
12 May 69 5p
Document Type: Journal article
Journal Announcement: USGRDR7005
Pub. in Jnl. of Applied Meteorology, v8 n4 p711-714 Aug 69.
NTIS Prices: Not available NTIS
Contract No.: AF 19(628)-5167
The measurement of air density at strato-mesopheric altitudes above Kwajalein, Marshall Islands, is part of a continuing study of the behavior of the upper atmosphere in the central tropical Pacific. This note presents some recent results and summarizes the meteorological observations made at Kwajalein during the past six years. (Author)